



## **DEPARTMENT OF THE INTERIOR**

### **Fish and Wildlife Service**

#### **50 CFR Part 17**

**[Docket No. FWS-R4-ES-2013-0029]**

**[4500030113]**

**RIN 1018-AZ51**

### **Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for *Chromolaena frustrata* (Cape Sable Thoroughwort)**

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Final rule.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), designate critical habitat for the *Chromolaena frustrata* (Cape Sable thoroughwort) under the Endangered Species Act of 1973,

as amended (Act). In total, approximately 10,968 acres (4,439 hectares) in Miami-Dade and Monroe Counties, Florida, fall within the boundaries of the critical habitat designation. The effect of this regulation is to designate critical habitat for this species under the Act for the conservation of the species.

**DATES:** This rule is effective on [**INSERT DATE 30 DAYS AFTER DATE OF FEDERAL REGISTER PUBLICATION**].

**ADDRESSES:** This final rule is available on the internet at <http://www.regulations.gov> and <http://www.fws.gov/verobeach/>. Comments and materials we received, as well as supporting documentation used in preparation of this rule, are available for public inspection at <http://www.regulations.gov>. All of the comments, materials, and documentation that we considered in this rulemaking are available by appointment, during normal business hours, at the U.S. Fish and Wildlife Service, South Florida Ecological Services Office, 1339 20th Street, Vero Beach, FL 32960; by telephone 772-562-3909; or by facsimile 772-562-4288.

The coordinates, plot points, or both from which the maps are generated are included in the administrative record for this critical habitat designation and are available at <http://www.regulations.gov>, Docket No. FWS-R4-ES-2013-0029, and at the U.S. Fish and Wildlife Service, South Florida Ecological Services Office at <http://www.fws.gov/verobeach/> (see **FOR FURTHER INFORMATION CONTACT**). Any additional tools or supporting information that we developed for this critical habitat designation will also be available at the

Fish and Wildlife Service website and Field Office set out above, and may also be included in the preamble of this rule and at <http://www.regulations.gov>.

**FOR FURTHER INFORMATION CONTACT:** Larry Williams, Field Supervisor, U.S. Fish and Wildlife Service, South Florida Ecological Services Office, 1339 20th Street, Vero Beach, FL 32960; telephone 772-562-3909; or facsimile 772-562-4288. If you use a use a telecommunications device for the deaf (TDD), call the Federal Information Relay Service (FIRS) at 800-877-8339.

## **SUPPLEMENTARY INFORMATION:**

### **Executive Summary**

*Why we need to publish a rule.* Under section 4(a)(3) of the Endangered Species Act (Act), when we determine that a species is endangered or threatened, we are required to designate critical habitat, to the maximum extent prudent and determinable. Designations of critical habitat can only be completed by issuing a rule.

We published our determination for *Chromolaena frustrata* as an endangered species on October 24, 2013 (78 FR 63796). On October 11, 2012 (77 FR 61836), we published in the **Federal Register** a proposed critical habitat designation for *C. frustrata*.

The areas we are designating in this rule constitute our current best assessment of the areas that meet the definition of critical habitat for *Chromolaena frustrata*. In total, we are designating approximately 10,968 acres (4,439 hectares), in nine units, as critical habitat for *C. frustrata*.

*We have prepared an economic analysis of the designation of critical habitat.* Section 4(b)(2) of the Act states that the Secretary shall designate critical habitat on the basis of the best scientific data, after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular areas as critical habitat. In accordance with section 4(b)(2) of the Act, we have prepared an analysis of the economic impacts of the critical habitat designation and related factors. We announced the availability of the draft economic analysis (DEA) in the **Federal Register** on July 8, 2013 (78 FR 40669), and sought comments from the public. We have incorporated the comments and have completed the final economic analysis (FEA) concurrently with this final designation.

*Peer review and public comment.* We sought comments from seven independent specialists to ensure that our designation is based on scientifically sound data, assumptions, and analyses. We obtained review from three knowledgeable individuals with scientific expertise to review our technical assumptions and analysis, and to determine whether or not we had used the best available information. These peer reviewers generally concurred with our methods and conclusions, and they provided additional information, clarifications, and suggestions to improve this final rule. Information we received from peer review is incorporated in this final

designation. We considered all comments and information we received from the public during the comment periods.

### **Previous Federal Actions**

On October 11, 2012, we published a proposed rule to list *Chromolaena frustrata* under the Act (16 U.S.C. 1531 *et seq.*) and designate critical habitat for *C. frustrata* (77 FR 61836). All Federal actions related to protection under the Act for this species, prior to October 11, 2012, are outlined in the preamble to the proposed rule. On July 8, 2013 (78 FR 40669), we reopened the comment period on the proposed rule and announced the availability of the draft economic analysis for the proposed critical habitat designation.

### **Summary of Comments and Recommendations**

We requested that the public submit written comments on the proposed designation of critical habitat for *Chromolaena frustrata* during two comment periods. The first comment period opened with the publication of the proposed rule on October 11, 2012, and closed on December 10, 2012 (77 FR 61836). The second comment period opened with the document published on July 8, 2013 (78 FR 40669), that made available and requested public comments on the draft economic analysis of the proposed critical habitat designation and that reopened the public comment period on the proposed listing and critical habitat designation. For that second comment period, we accepted public comments from July 8, 2013, through August 7, 2013 (78 FR 40669). We also contacted appropriate Federal, State, and local agencies; scientific

organizations; and other interested parties and invited them to comment on the proposed rule and draft economic analysis during these comment periods. In addition, in October 2012, we published a total of six legal public notices on the proposed rule in the areas of south Florida affected by the designation. We did not receive any requests for a public hearing during either comment period.

The October 11, 2012, proposed rule contained both the proposed listing of *Chromolaena frustrata*, *Consolea corallicola*, and *Harrisia aboriginum*, as well as the proposed designation of critical habitat for *Chromolaena frustrata*. Therefore, we received combined comments from the public on both actions. However, in this final rule, we address only those comments that apply to the designation of critical habitat for *Chromolaena frustrata*. During the first comment period, we received one letter directly commenting on the proposed critical habitat designation for *Chromolaena frustrata*. During the second comment period, we received one letter commenting on the proposed critical habitat designation.

All substantive information provided during the comment periods specifically relating to the proposed critical habitat designation for *Chromolaena frustrata* is addressed in the following summary and incorporated into this final rule as appropriate.

#### *Peer Reviewer Comments*

In accordance with our peer review policy published on July 1, 1994 (59 FR 34270), we solicited expert opinions from seven knowledgeable individuals with scientific expertise that

included familiarity with the species, the geographic region in which the species occurs, and conservation biology principles. Of those, three reviewers were experts on *Chromolaena frustrata*. We received responses from six of the peer reviewers including the experts on *C. frustrata*.

We reviewed all comments we received from the peer reviewers for substantive issues and new information regarding critical habitat for *Chromolaena frustrata*. The peer reviewers generally concurred with our methods and conclusions and provided additional information, clarifications, and suggestions to improve this final critical habitat rule. Two peer reviewer comments are addressed in the following summary and incorporated into this final rule as appropriate.

(1) *Comment*: One peer reviewer indicated that rockland hammock does not occur in the coastal area of Everglades National Park (ENP). Instead, the commenter indicated the habitat in ENP where *Chromolaena frustrata* occurs should be classified as coastal hardwood hammock.

*Our Response*: Unit 1 (ENP) includes the areas and habitats referred to by the peer reviewer. The Service misapplied the name rockland hammock to the coastal hardwood hammock habitat (*sensu* Rutchey *et al.* 2006, p. 21) present within this unit. While similar in overall vegetation structure and disturbance regime, coastal hardwood hammock differs from rockland hammock in that it develops on elevated marl ridges with a thin layer of organic matter, as opposed to exposed limestone. The plant species composition of coastal hardwood hammock also differs somewhat from rockland hammock. These clarifications have been incorporated in

the “Habitat” and “Distribution and Range” sections; and the *Physical or Biological Features* and *Primary Constituent Elements for Chromolaena frustrata* sections of this final rule. No changes were made to the unit boundaries because of this change in classification of the habitat.

(2) *Comment*: One peer reviewer indicated that coastal berm does not occur within the critical habitat proposed in ENP.

*Our Response*: The Service incorrectly thought that coastal berm habitat was present in Unit 1 (ENP). ENP staff confirmed that this is not the case. We removed references to coastal berm in Unit 1 in the unit description.

#### *Comments from States*

The proposed designation of critical habitat for *Chromolaena frustrata* occurs only in the State of Florida. The Florida Department of Agriculture and Consumer Services (FDACS), Florida Forest Service, an agency that administers a grant program for imperiled plant species in Florida, provided only peer review comments on the proposed rule. The FDACS, Division of Plant Industry, the agency responsible for permits for collecting or harvesting State-protected plants in Florida, was notified by Service staff of the reopening of the comment period and notice of availability of the economic analysis, and that Division provided official comments supporting the designation of critical habitat for the plant.

#### *Public Comments*

(3) *Comment:* One commenter indicated that critical habitat designation for *Chromolaena frustrata* should explicitly include both occupied and unoccupied habitat areas that will buffer this species from climate change, and the Service should explain how these areas will be sufficient to ensure the species' persistence in the face of ongoing sea-level rise.

*Our Response:* The sea-level rise projections discussed under Factor E (see the proposed listing rule, 77 FR 61836) suggest that much of the proposed critical habitat for *Chromolaena frustrata* could be lost to sea-level rise by 2100 if high-end projections approaching 6.6 feet (ft) (2 meters (m)) become a reality. This critical habitat designation for *C. frustrata* includes both occupied and unoccupied habitat at the highest elevation areas available within the species' historical range in the Florida Keys, so as to provide suitable upland habitat for the longest possible time before these areas are lost to sea-level rise. The highest sea-level rise of 5.9 ft (1.8 m) forecast for this area based on inundation modeling indicates the higher elevation areas of Key Largo, Upper Matecumbe, and Lignumvitae Key will continue to support upland habitats to at least 2100. However, all other areas in the Florida Keys and areas that currently support *C. frustrata* in ENP may be lost to sea-level rise by 2100.

In the next 50 to 100 years, in order for *Chromolaena frustrata* to survive, reintroduction to suitable higher elevation sites outside of its historical range may be the only available option. However, the best available science is not able to project future locations of suitable habitat for *C. frustrata* on the Florida mainland, which will also be affected by sea-level rise within and outside the historical range of the plant. The range of sea-level rise projections coupled with the lack of models specific to the areas and habitats does not support identification of unoccupied

areas of critical habitat for this species solely on the basis of the effects of climate change on the Florida mainland at this time.

(4) *Comment:* One commenter indicated there are ample precedent, legal authority, and conservation imperatives for the Service to identify and designate unoccupied inland habitat for the plant to buffer it from the effects of sea-level rise and increasing storm surge.

*Our Response:* As stated in the response to Comment 3, above, we agree that considerations should include whether unoccupied areas (including areas outside the historical range) are essential to the conservation of the species, including areas less vulnerable to sea-level rise and storm surge impacts in the future. We have endeavored to designate areas of habitat to serve these functions for *Chromolaena frustrata*, within the bounds of the best available science. We selected areas of higher elevation within suitable habitat on each of the Florida Keys within the species' historical range with the expectation that these areas will be less vulnerable to storm surge and will retain the physical and biological features that support *Chromolaena frustrata* for a longer duration than many of the sites where the species exists currently. However, the best available science is not able to project future locations of suitable habitat for the species on the Florida mainland. Therefore, we did not designate unoccupied critical habitat solely on the basis of the effects of climate change.

### **Summary of Changes from Proposed Rule**

Based on information we received in comments regarding the habitats that support *Chromolaena frustrata*, we refined our description of the primary constituent elements to more

accurately reflect the habitat needs of the species. Specifically, habitats in ENP previously identified as rockland hammock were reclassified as coastal hardwood hammock to account for the different substrate on which these communities develop and subtle differences in species composition. No adjustments to the unit boundaries were needed as a result of this change. A change, made throughout the final rule, was the clarification that plant species in each habitat community may be present, but are not limited to those native species listed in the vegetation description.

We corrected errors in the critical habitat unit acreage that were due to rounding errors. These rounding errors resulted in changes of no more than 1 to 3 ac (0 to 1 ha) in any given unit. We also corrected a calculation error in the acreage of Unit 1 (ENP). This error was due to a miscalculation of the unit size. In the proposed rule, we reported the area of Unit 1 as 3,768 ac (1,525 ha). In the final rule, we report the correct area, which is 6,166 ac (2,495 ha). The Service coordinated this change with ENP, who expressed no concern with the change, as their review focused on the mapped boundaries in the proposed rule, which correctly represented the proposed designated habitat. No adjustments to the unit boundaries were needed as a result of this change. This change does not affect the outcome of economic analysis for the proposed unit designations concerning the projection of incremental effects, as it is based on the consultation history in the mapped area, not the acres. The rounding error corrections and the unit 1 acreage correction results in the total acreage of designated critical habitat for *Chromolaena frustrata* to be 10,968 ac (4,439 ha).

Summary of Biological Status for *Chromolaena frustrata*

For more information on *Chromolaena frustrata*'s taxonomy, life history, habitat, population descriptions, and factors affecting the species, refer to the proposed rule published in the **Federal Register** on October 11, 2012 (77 FR 61836).

We have evaluated the biological status of this species and threats affecting its continued existence. Our assessment, as summarized immediately below, is based upon the best available scientific and commercial data and the opinion of the species experts.

*Chromolaena frustrata* (Family: Asteraceae) is a perennial herbaceous plant. Mature plants are 5.9 to 9.8 inches (in) (15 to 25 centimeters (cm)) tall with erect stems. The blue to lavender flowers are borne in heads, usually in clusters of two to six. Flowers are produced mostly in the fall, though sometimes year round (Nesom 2006, pp. 544–545).

#### Taxonomy

*Chromolaena frustrata* was first reported by Chapman, from the Florida Keys in 1886, naming it *Eupatorium heteroclinium* (Chapman 1889, p. 626). Synonyms include *Eupatorium frustratum* B.L. Robinson and *Osmia frustrata* (B.L. Robinson) Small.

#### Climate

The climate of south Florida where *Chromolaena frustrata* occurs is classified as tropical savanna and is characterized by distinct wet and dry seasons, a monthly mean temperature above

64.4 degrees Fahrenheit (°F) (18 degrees Celsius (°C)) in every month of the year, and annual rainfall averaging 30 to 60 in (75 to 150 cm) (Gabler *et al.* 1994, p. 211).

#### Habitat

*Chromolaena frustrata* grows in open canopy habitats in coastal berms and coastal rock barrens, and in semi-open to closed canopy habitats, including buttonwood forests, coastal hardwood hammocks, and rockland hammocks. *C. frustrata* is often found in the shade of associated canopy and subcanopy plant species; these canopies buffer *C. frustrata* from full exposure to the sun (Bradley and Gann 1999, p. 37).

Detailed descriptions of coastal berm, coastal rock barren, rockland hammock, and buttonwood forest are presented in the proposed listing rule for *Chromolaena frustrata*, *Consolea corallicola*, and *Harrisia aboriginum* (77 FR 61836; October 11, 2012). Peer reviewers provided new information identifying coastal hardwood hammock as the community type supporting *Chromolaena frustrata* in ENP and identified associated species found in buttonwood forest in ENP. We include a full description of the coastal hardwood hammock and a revised description of the buttonwood forest communities below.

#### *Coastal Hardwood Hammock*

Coastal hardwood hammock that supports *Chromolaena frustrata* in ENP is a species-rich, tropical hardwood forest. Though similar to rockland hammock in most characteristics, coastal hardwood hammock develops on a substrate consisting of elevated marl ridges with a very thin organic layer (Sadle 2012a, pers. comm.). Marl is an unconsolidated sedimentary rock

or soil consisting of clay and lime. The plant species composition of coastal hardwood hammocks also differs somewhat from that of rockland hammock. Typical tree and shrub species may include, but are not limited to, *Capparis flexuosa* (bayleaf capertree), *Coccoloba diversifolia* (pigeon plum), *Piscidia piscipula* (Jamaican dogwood), *Sideroxylon foetidissimum* (false mastic), *Eugenia foetida* (Spanish stopper), *Swietenia mahagoni* (West Indies mahogany), *Ficus aurea* (strangler fig), *Sabal palmetto* (cabbage palm), *Eugenia axillaris* (white stopper), *Zanthoxylum fagara* (wild lime), *Sideroxylon celastrinum* (saffron plum), and *Colubrina arborescens* (greenheart) (Rutchey *et al.* 2006, p. 21). Herbaceous species in coastal hardwood forest may include, but are not limited to, *Acanthocereus tetragonus* (barbed wire or triangle cactus), *Alternanthera flavescens* (yellow joyweed), *Batis maritima* (saltwort or turtleweed), *Borrchia arborescens* (tree seaside oxeye), *Borrchia frutescens* (bushy seaside oxeye), *Caesalpinia bonduc* (grey nicker), *Capsicum annuum* (bird pepper), *Galactia striata* (Florida hammock milkpea), *Heliotropium angiospermum* (scorpion's tail), *Passiflora suberosa* (corkstem passionflower), *Rivina humilis* (pigeonberry), *Salicornia perennis* (perennial glasswort), *Sesuvium portulacastrum* (seapurslane), and *Suaeda linearis* (sea blite). Ground cover is often limited in closed canopy areas and abundant in areas where canopy disturbance has occurred or where this community intergrades with buttonwood forest (Sadle 2012a, pers. comm.).

The sparsely vegetated edges or interior portions of rockland and coastal hardwood hammock where the canopy is open are the areas that have light levels sufficient to support *Chromolaena frustrata*. However, the dynamic nature of the habitat means that areas not currently open may become open in the future as a result of canopy disruption from hurricanes,

while areas currently open may develop more dense canopy over time, eventually rendering that portion of the hammock unsuitable for *C. frustrata*.

### Buttonwood Forest

Forests dominated by buttonwood often exist in upper tidal areas, especially where mangrove swamp transitions to rockland or coastal hardwood hammock. These buttonwood forests have canopy dominated by *Conocarpus erectus* (buttonwood) and often have an understory dominated by *Borrchia frutescens*, *Lycium carolinianum* (Christmasberry), and *Limonium carolinianum* (sea lavender) (Florida Natural Areas Inventory (FNAI) 2010d, p. 4). In ENP, the species most frequently observed in association with *Chromolaena frustrata* are *Capparis flexuosa*, *Borrchia frutescens*, *Alternanthera flavescens*, *Rivina humilis*, *Sideroxylon celastrinum*, *Heliotropium angiospermum*, *Eugenia foetida*, *Batis maritima*, *Acanthocereus tetragonus*, and *Sesuvium portulacastrum* (Sadle 2012a, pers. comm.).

Temperature, salinity, tidal fluctuation, substrate, and wave energy influence the size and extent of buttonwood forests (FNAI 2010e, p. 3). Buttonwood forests often grade into salt marsh, coastal berm, rockland hammock, coastal hardwood hammock, and coastal rock barren (FNAI 2010d, p. 5).

### Distribution and Range

*Chromolaena frustrata* is endemic to the southern tip of Florida and the Florida Keys. It

occurs within coastal berm, coastal rock barrens, coastal hardwood hammock, rockland hammock, and buttonwood forest habitat. The estimated rangewide population was 6,500 to 7,500 plants when the eight known populations were last surveyed (Bradley and Gann 2004, pp. 3–6; Sadle 2012a, pers. comm.; Duquesnel 2012, pers. comm.). Four of eight extant *C. frustrata* populations consist of fewer than 100 individuals. These populations may not be viable in the long term due to their small number of individuals.

*Chromolaena frustrata* was historically known from Monroe County, both on the Florida mainland and the Florida Keys, and in Miami-Dade County along Florida Bay in ENP (Bradley and Gann 1999, p. 36). In the Florida Keys, *C. frustrata* was observed historically on Big Pine Key, Boca Grande Key, Fiesta Key, Key Largo, Key West, Knight’s Key, Lignumvitae Key, Long Key, Upper Matecumbe Key, and Lower Matecumbe Key (Bradley and Gann 1999, p. 36; Bradley and Gann 2004, pp. 4–7). *Chromolaena frustrata* has been extirpated from half of the islands where it occurred in the Florida Keys, but appears to occupy its historical distribution in ENP. Although remaining *C. frustrata* populations occur mostly within public conservation lands, threats to the species from a wide array of natural and anthropogenic sources still remain. Habitat loss and modification, recreation impacts, and competition from nonnative plant species still exist in all remaining populations. Additionally, much of the species’ habitat is projected to be lost to sea-level rise over the next century.

In ENP, 11 *Chromolaena frustrata* subpopulations supporting approximately 1,600 to 2,600 plants occur in buttonwood forests and coastal hardwood hammocks from the Coastal

Prairie Trail near the southern tip of Cape Sable to Madeira Bay (Sadle 2007 and 2012b, pers. comm.).

In the Florida Keys, *Chromolaena frustrata* is now known only from Upper Matecumbe Key, Lower Matecumbe Key, Lignumvitae Key, Long Key, Big Munson Island, and Boca Grande Key (Bradley and Gann 2004, pp. 3–4). It no longer exists on Key Largo, Big Pine Key, Fiesta Key, Knight’s Key, or Key West (Bradley and Gann 2004, pp. 4–6).

### Reproductive Biology and Genetics

The reproductive biology and genetics of *Chromolaena frustrata* have received little study. Fresh *C. frustrata* seeds show a germination rate of 65 percent, but germination rates decrease to 27 percent after the seeds are subjected to freezing, suggesting that long-term seed storage may present difficulties (Kennedy *et al.* 2012, pp. 40, 50–51). While there have been no studies on the reproductive biology of *C. frustrata*, we can draw some generalizations from other species of *Chromolaena*, which reproduce sexually. New plants originate from seeds. Pollinators are likely to be generalists, such as butterflies, bees, flies, and beetles. Seed dispersal is largely by wind (Lakshmi *et al.* 2011, p. 1).

### Population Demographics

*Chromolaena frustrata* is relatively a short-lived plant; therefore it must successfully reproduce more often than a long-lived species to maintain populations. *C. frustrata* populations

are demographically unstable, experiencing sudden steep declines due to the effects of hurricanes and storm surges. However, the species appears to be able to rebound at affected sites within a few years (Bradley 2009, pers. comm.). The large population observed at Big Munson Island in 2003 likely resulted from thinning of the rockland hammock canopy caused by Hurricane Georges in 1998 (Bradley and Gann 2004, p. 4). Populations that are subject to wide demographic fluctuations are generally more vulnerable to random extinction events and negative consequences arising from small populations, such as genetic bottlenecks.

## **Critical Habitat**

### *Background*

Critical habitat is defined in section 3 of the Act as:

(1) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features

(a) Essential to the conservation of the species, and

(b) Which may require special management considerations or protection; and

(2) Specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures that are necessary to bring an endangered or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources

management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the requirement that Federal agencies ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by non-Federal landowners. Where a landowner requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the consultation requirements of section 7(a)(2) of the Act would apply, but even in the event of a destruction or adverse modification finding, the obligation of the Federal action agency and the landowner is not to restore or recover the species, but to implement reasonable and prudent alternatives to avoid destruction or adverse modification of critical habitat.

Under the first prong of the Act's definition of critical habitat, areas within the geographical area occupied by the species at the time it was listed are included in a critical habitat designation if they contain physical or biological features (1) which are essential to the conservation of the species and (2) which may require special management considerations or protection. For these areas, critical habitat designations identify, to the extent known using the

best scientific and commercial data available, those physical or biological features that are essential to the conservation of the species (such as space, food, cover, and protected habitat). In identifying those physical or biological features within an area, we focus on the principal biological or physical constituent elements (primary constituent elements such as roost sites, nesting grounds, seasonal wetlands, water quality, tide, soil type) that are essential to the conservation of the species. Primary constituent elements are those specific elements of the physical or biological features that provide for a species' life-history processes and are essential to the conservation of the species.

Under the second prong of the Act's definition of critical habitat, we can designate critical habitat in areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. For example, an area currently occupied by the species but that was not occupied at the time of listing may be essential to the conservation of the species and may be included in the critical habitat designation. We designate critical habitat in areas outside the geographical area occupied by a species only when a designation limited to its range would be inadequate to ensure the conservation of the species.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific and commercial data available. Further, our Policy on Information Standards Under the Endangered Species Act (published in the **Federal Register** on July 1, 1994 (59 FR 34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106-554; H.R. 5658)), and our associated

Information Quality Guidelines provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

When we are determining which areas should be designated as critical habitat, our primary source of information is generally the information developed during the listing process for the species. Additional information sources may include the recovery plan for the species, articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, biological assessments, other unpublished materials, or experts' opinions or personal knowledge.

Habitat is dynamic, and species may move from one area to another over time. We recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be needed for recovery of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, will continue to be subject to: (1) Conservation actions implemented under section 7(a)(1) of the Act, (2) regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to insure their actions are not likely to jeopardize the continued existence of any endangered or threatened species, and (3) section 9 of the Act's prohibitions on taking any

individual of the species, including taking caused by actions that affect habitat. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. These protections and conservation tools will continue to contribute to recovery of this species. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans (HCPs), or other species conservation planning efforts if new information available at the time of these planning efforts calls for a different outcome.

### *Physical or Biological Features*

In accordance with section 3(5)(A)(i) and 4(b)(1)(A) of the Act and regulations at 50 CFR 424.12, in determining which areas within the geographical area occupied by the species at the time of listing to designate as critical habitat, we consider the physical or biological features essential to the conservation of the species and which may require special management considerations or protection. These include, but are not limited to:

- (1) Space for individual and population growth and for normal behavior;
- (2) Food, water, air, light, minerals, or other nutritional or physiological requirements;
- (3) Cover or shelter;
- (4) Sites for breeding, reproduction, or rearing (or development) of offspring; and
- (5) Habitats that are protected from disturbance or are representative of the historical, geographical, and ecological distributions of a species.

We derived the specific physical or biological features essential for *Chromolaena*

*frustrata* from studies of this species' habitat, ecology, and life history as described in the **Critical Habitat** section of the proposed rule to designate critical habitat published in the **Federal Register** on October 11, 2012 (77 FR 61836), and in the information presented below. We have determined that physical or biological features presented below are required for the conservation of *C. frustrata*. One change to these features in this final determination from the proposed rule is a result of the peer review process: coastal hardwood hammock has been added to the plant communities known for *C. frustrata* because it describes the plant community more accurately in ENP (Sadle 2012a, pers. comm.). We also include new information about reproductive patterns in the genus *Chromolaena*.

#### Space for Individual and Population Growth

Plant Community and Competitive Ability. *Chromolaena frustrata* occurs in communities classified as coastal berms, coastal rock barrens, buttonwood forests, coastal hardwood hammocks, and rockland hammocks restricted to tropical south Florida and the Florida Keys. These communities and their associated native plant species are provided in the **Status Assessment for *Chromolaena frustrata*, *Consolea corallicola*, and *Harrisia aboriginum*** section of the proposed rule (77 FR 61836) and the newly added information on coastal hardwood hammocks and buttonwood forests in this final rule. Therefore, we identify upland habitats consisting of coastal berms, coastal rock barrens, buttonwood forests, coastal hardwood hammocks, and rockland hammocks restricted to tropical south Florida and the Florida Keys to be a physical or biological feature for *Chromolaena frustrata*.

## Food, Water, Air, Light, Minerals, or Other Nutritional or Physiological Requirements

*Climate (temperature and precipitation).* The climate of south Florida where *Chromolaena frustrata* occurs is characterized by distinct wet and dry seasons, a monthly mean temperature above 64.4 °F (18 °C) in every month of the year, and annual rainfall averaging 30 to 60 in (75 to 150 cm) (Gabler *et al.* 1994, p. 211). Freezes can occur in the winter months, but are very infrequent at this latitude in Florida.

*Soils.* Substrates supporting *Chromolaena frustrata* for anchoring or nutrient absorption vary depending on the habitat and location and include marl (an unconsolidated sedimentary rock or soil consisting of clay and lime) (Sadle 2008 and 2012a, pers. comm.); soils consisting of covering limestone; exposed bare limestone rock or with a thin layer of leaf litter or highly organic soil (Bradley and Gann 1999, p. 37; FNAI 2010d, p. 1); or loose sediment formed by a mixture of coarse sand, shell fragments, pieces of coralline algae, and other coastal debris (FNAI 2010a, p. 1). The natural process giving rise to coastal rock barren is not known, but as it occurs on sites where the thin layer of organic soil over limestone bedrock is missing, coastal rock barren may have formed by soil erosion following destruction of the plant cover by fire or storm surge (FNAI 2010c, p. 2). Therefore, we identify substrates derived from calcareous sand, limestone, or marl that provide anchoring and nutritional requirements to be a physical or biological feature for *Chromolaena frustrata*.

*Hydrology.* The species requires coastal berms and coastal rock barrens habitats that occur above the daily tidal range, but are subject to flooding by seawater during extreme tides

and storm surge. Rockland hammock and coastal hardwood hammock occur on high ground that does not regularly flood, but they are often dependent upon a high water table to keep humidity levels high, and they can be inundated during storm surges (FNAI 2010d, p. 1). Therefore, we identify habitats inundated by storm surge or tidal events at a frequency needed to limit plant species competition while not creating too high of a saline condition to be a physical or biological feature for *Chromolaena frustrata*.

#### Cover or Shelter

*Chromolaena frustrata* occurs in open canopy and semi-open to closed canopy habitats and thrives in areas of moderate sun exposure (Bradley and Gann 1999, p. 37). The amount and frequency of such microsites varies by habitat type and time elapsed since the last disturbance. In rockland and coastal hardwood hammocks, suitable microsites will often be found near the hammock edge where the canopy is most open. However, the species has been observed to spread into the hammocks when canopy cover is reduced by hurricane damage to canopy trees. More open communities (e.g., coastal berm, buttonwood, and salt marsh ecotone) provide more abundant and temporally consistent suitable habitat than communities capable of establishing a dense canopy (e.g., rockland and coastal hardwood hammock). Therefore, we identify habitats that have a vegetation composition and structure that allows for adequate sunlight and space for individual growth and population expansion to be a physical or biological feature for *Chromolaena frustrata*.

#### Sites for Breeding, Reproduction, or Rearing (or Development) of Offspring

While there have been no studies on the reproductive biology of *Chromolaena frustrata*, we can draw some generalizations from other species of *Chromolaena*, which reproduce sexually. Pollinators are likely to be generalists, such as butterflies, bees, flies, and beetles. New plants originate from seeds and seeds dispersal is largely by wind (Lakshmi *et al.* 2011, p. 1).

The sparsely vegetated edges or interior portions opened by canopy disruption are the areas of rockland and coastal hardwood hammock that have light levels sufficient to support *Chromolaena frustrata*. However, the dynamic nature of the habitat means that areas not currently open may become open in the future as a result of canopy disruption from hurricanes, while areas currently open may develop more dense canopy over time, eventually rendering that portion of the hammock unsuitable for *C. frustrata*. Therefore, we identify habitats that have disturbance regimes, including hurricanes, and infrequent inundation events that saturate the substrate and maintain the habitat suitability to be physical or biological features for *Chromolaena frustrata*.

#### Habitats Protected from Disturbance or Representative of the Historical, Geographic, and Ecological Distributions of the Species

*Chromolaena frustrata* continues to occur in habitats that are protected from human-generated disturbances and are representative of the species' historical, geographical, and ecological distribution although its range has been reduced. The species is still found in all of its

representative plant communities: rock barrens, coastal berms, buttonwood forest, coastal hardwood hammocks, and rockland hammocks. In addition, representative communities are located on Federal, State, local, and private conservation lands that implement conservation measures benefitting the species. The species requires habitat of sufficient size and connectivity that can support species growth, distribution and population expansion.

*Primary Constituent Elements for Chromolaena frustrata*

Under the Act and its implementing regulations, we are required to identify the physical or biological features essential to the conservation of *Chromolaena frustrata* in areas occupied at the time of listing, focusing on the features' primary constituent elements (PCEs). Primary constituent elements are those specific elements of the physical or biological features that provide for a species' life-history processes and are essential to the conservation of the species.

Based on our current knowledge of the physical or biological features and habitat characteristics required to sustain the species' life-history processes, we determine that the PCEs specific to *Chromolaena frustrata* are:

- (1) Areas of upland habitats consisting of coastal berm, coastal rock barren, coastal hardwood hammock, rockland hammocks, and buttonwood forest.
  - (a) Coastal berm habitat that contains:
    - (i) Open to semi-open canopy, subcanopy, and understory; and
    - (ii) Substrate of coarse, calcareous, storm-deposited sediment.

(b) Coastal rock barren (Keys cactus barren, Keys tidal rock barren) habitat that contains:

- (i) Open to semi-open canopy and understory; and
- (ii) Limestone rock substrate.

(c) Coastal hardwood hammock habitat occurring in Everglades National Park that contains:

(i) Canopy gaps and edges with an open to semi-open canopy, subcanopy, and understory; and

(ii) Substrate of marl covered with a thin layer of highly organic soil.

(d) Rockland hammock habitat that contains:

(i) Canopy gaps and edges with an open to semi-open canopy, subcanopy, and understory; and

(ii) Substrate with a thin layer of highly organic soil, marl, humus, or leaf litter on top of the underlying limestone.

(e) Buttonwood forest habitat that contains:

(i) Open to semi-open canopy and understory; and

(ii) Substrate with calcareous marl muds, calcareous sands, or limestone rock.

(2) Plant communities of predominately native vegetation with either no invasive, nonnative species or with low enough quantities of nonnative, invasive plant species to have minimal effect on the survival of *Chromolaena frustrata*.

(3) A disturbance regime, due to the effects of strong winds or saltwater inundation from storm surge or infrequent tidal inundation, that creates canopy openings in coastal berm, coastal rock barren, coastal hardwood hammock, rockland hammocks, and buttonwood forest.

(4) Habitats that are connected and of sufficient area to sustain viable populations in coastal berm, coastal rock barren, coastal hardwood hammock, rockland hammocks, and buttonwood forest.

#### *Special Management Considerations or Protections*

When designating critical habitat, we assess whether the specific areas within the geographical area occupied by the species at the time of listing contain features that are essential to the conservation of the species and which may require special management considerations or protection.

Special management considerations or protection are necessary throughout the critical habitat areas to avoid further degradation or destruction of the habitat that contains those features essential for the conservation of the species. The primary threats to the physical or biological features that *Chromolaena frustrata* depends on include: (1) Habitat destruction and modification by development; (2) competition with nonnative, invasive plant species that changes the habitat composition and structure; (3) wildfire that destroys habitat; (4) hurricanes and storm surge, if too frequent or severe destroy or modify habitat making it unsuitable; and (5) sea-level rise that changes the habitat to a more saline environment. Some of these threats can be

addressed by special management considerations or protection while others (e.g., sea-level rise, hurricanes) are beyond the control of landowners and managers. However, while landowners or land managers may not be able to control all the threats, they may be able to address the results of the threats to the habitats.

Management activities that could ameliorate these threats include the monitoring and minimizing recreational activities impacts, nonnative species control, and protection from development. Precautions are needed to avoid the inadvertent trampling of *Chromolaena frustrata* in the course of management activities and public use. Development of recreation facilities or programs should avoid impacting these habitats directly or indirectly. Ditching and filling should be avoided because they alter the hydrology and species composition of these habitats. Sites that have shown increasing encroachment of woody species over time may require efforts to maintain the open nature of the habitat, which favors these species. Nonnative species control programs are needed to reduce competition and prevent habitat degradation. The reduction of these threats will require the implementation of special management actions within each of the critical habitat areas identified in this rule. All critical habitat requires active management to address the ongoing threats listed.

In summary, we find that each of the areas we are designating as critical habitat contain features essential to the conservation of *Chromolaena frustrata* that may require special management considerations or protection to ensure conservation of the species. These special management considerations and protections are required to preserve and maintain the essential features provided to *C. frustrata* by the ecosystems upon which it depends. A more detailed

discussion of these threats is presented in the proposed rule under “**Summary of Factors Affecting the Species**” (77 FR 61836; October 11, 2012).

#### *Criteria Used To Identify Critical Habitat*

As required by section 4(b)(2) of the Act, we used the best scientific data available to designate critical habitat. In accordance with the Act and our implementing regulations at 50 CFR 424.12(b) we review available information pertaining to the habitat requirements of the species and identify occupied areas at the time of listing that contain the features essential to the conservation of the species. If after identifying currently occupied areas, we determine that those areas are inadequate to ensure conservation of the species, in accordance with the Act and our implementing regulations at 50 CFR 424.12(e), we then consider whether designating additional areas—outside those currently occupied—are essential for the conservation of the species. In this rule, we are designating critical habitat in areas within the geographical area occupied by the species at the time of listing in 2013. We also are designating specific areas outside the geographical area occupied by the species at the time of listing that were historically occupied, because we have determined that such areas are essential for the conservation of the species.

Sources of data for this analysis included the following:

(1) Florida Natural Areas Inventory (FNAI) population records and ArcGIS geographic information system (GIS) software to spatially depict the location and extent of documented populations of *Chromolaena frustrata* (FNAI 2012, pp. 1–17);

(2) Reports prepared by botanists with the Institute for Regional Conservation (IRC),

National Park Service (NPS), and Florida Department Environmental Protection (FDEP). Some of these were funded by the Service, others were requested or volunteered by biologists with the NPS or FDEP;

(3) Historical records found in reports and associated voucher specimens housed at herbaria, all of which are also referenced in the above mentioned reports from the IRC and FNAI;

(4) Digitally produced habitat maps provided by NPS and Monroe County; and

(5) Aerial images of Miami-Dade and Monroe Counties. The presence of PCEs was determined through the use of GIS spatial data depicting the current habitat status. This habitat data for the Florida Keys were developed by Monroe County from 2006 aerial images, and ground conditions for many areas were checked in 2009. Habitat data for ENP were provided by the NPS. The areas that contain PCEs follow predictable landscape patterns and have a recognizable signature in the aerial photographs.

Four of the eight extant *Chromolaena frustrata* populations consist of fewer than 100 individuals; two others have fewer than 250 individuals. Small populations such as these populations that have limited distributions, are vulnerable to relatively minor environmental disturbances (Given 1994, pp. 66–76; Frankham 2005, pp. 135–136), and are subject to the loss of genetic diversity from genetic drift, the random loss of genes, and inbreeding (Ellstrand and Elam 1993, pp. 217–237; Leimu *et al.* 2006, pp. 942–952). Plant populations with lowered genetic diversity are more prone to local extinction (Barrett and Kohn 1991, pp. 4, 28). Smaller plant populations generally have lower genetic diversity, and lower genetic diversity may in turn lead to even smaller populations by decreasing the species' ability to adapt, thereby increasing

the probability of population extinction (Newman and Pilson 1997, p. 360; Palstra and Ruzzante 2008, pp. 3428–3447). Because of the risks associated with small populations or limited distributions, the recovery of many rare plant species includes the creation of new sites or reintroductions to ameliorate these effects.

The current distribution of the *Chromolaena frustrata* is much reduced from its historical distribution. We anticipate that recovery will require continued protection of existing populations and habitat, as well as establishing populations in additional locations that more closely approximate its historical distribution in order to ensure there is adequate number of *C. frustrata* stable populations and that these populations occur over a wide geographic area within the species' historical range. This will help to ensure that catastrophic events, such as hurricanes or wildfire, would not simultaneously affect all known populations.

#### Areas Occupied at the Time of Listing

For the purpose of designating critical habitat for *Chromolaena frustrata*, we defined the geographical area currently occupied by the species as required by section 3(5)(A)(i) of the Act. The occupied critical habitat units were delineated around documented extant populations. These units include the mapped extent of the population that contain one or more of the elements of the physical or biological features. We considered the following when identifying occupied areas of critical habitat:

(1) Space to allow for the successional nature of the occupied habitats (i.e., gain and loss of areas with sufficient light availability due to disturbance of the tree canopy driven by natural events such as inundation and hurricanes), and habitat transition or loss due to sea-level rise. In

ENP, the distribution of *Chromolaena frustrata* is across a larger area than at any other single location. In the Florida Keys, the same criteria were used, but the size of the units is limited by the size of individual islands.

(2) Some areas will require special management to maintain connectivity of occupied habitat to allow for population expansion and connection with other populations. Isolation of populations can result in localized extinctions.

(3) Some areas will require special management to be able to support a higher density of the plant within the occupied space. These areas generally are habitats where some of the primary constituent elements have been lost through natural or human causes. These areas would help to off-set the anticipated loss and degradation of habitat occurring or expected from the effects of climate change (such as sea-level rise) or due to development.

After following the above criteria, we determined that occupied areas were not sufficient for the conservation of the species for the following reasons: (1) Restoring the species to its historical range and reducing its vulnerability to stochastic events such as hurricanes and storm surge requires reintroduction to areas where it occurred in the past but has since been extirpated; (2) providing increased connectivity for populations and areas for small populations to expand requires currently unoccupied habitat; and (3) reintroduction or assisted migration to reduce the vulnerability of the species to sea-level rise and storm surge requires higher elevation sites that currently are unoccupied by *Chromolaena frustrata*. Therefore, we looked to unoccupied areas that may be essential for the conservation of the species.

Areas Outside the Geographic Area Occupied at the Time of Listing

When designating critical habitat, we consider future recovery efforts and conservation of the species. Realizing that the current occupied habitat is not enough for the conservation and recovery of *Chromolaena frustrata*, we used habitat and historical occurrence data to identify unoccupied habitat essential for the conservation of the species as described below.

The unoccupied areas are essential for the conservation of the species because they:

(1) Represent the historical range of *Chromolaena frustrata*. *C. frustrata* has been extirpated from several locations where it was previously recorded. Of those areas found in reports, we are designating critical habitat only where there are well documented historical occurrences (i.e., Big Pine Key and Key Largo (Bradley and Gann 2004, pp. 4–6)). These areas still retain some or all the elements of the physical or biological features. Areas such as Fiesta Key and Knight’s Key, which once supported populations of *C. frustrata* but no longer contain any PCEs and cannot be restored, are not included.

(2) Provide areas of sufficient size to support ecosystem processes for populations of *Chromolaena frustrata*. These areas are essential for the conservation of the species because they will provide areas for population expansion and growth. Large contiguous parcels of habitat are more likely to be resilient to ecological processes of disturbance and succession, and support viable populations of *C. frustrata*. The unoccupied areas selected were at least 30 ac (12.1 ha) or greater in size.

The amount and distribution of designated critical habitat will allow *Chromoleana frustrata* to:

- (1) Maintain its existing distribution;
- (2) Expand its distribution into historically occupied areas (needed to offset habitat loss and fragmentation);
- (3) Use habitat depending on habitat availability (respond to changing nature of coastal habitat including occurring sea-level rise) and support genetic diversity;
- (4) Increase the size of each population to a level where the threats of genetic, demographic, and normal environmental uncertainties are diminished; and
- (5) Maintain its ability to withstand local or unit level environmental fluctuations or catastrophes.

When determining critical habitat boundaries within this final rule, we made every effort to avoid including developed areas such as lands covered by buildings, pavement, and other structures because such lands lack physical or biological features for *Chromolaena frustrata*. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed lands. Any such lands inadvertently left inside critical habitat boundaries shown on the maps of this final rule have been excluded by text in the rule and are not designated as critical habitat. Therefore, a Federal action involving these lands will not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action would affect the physical or biological features in the adjacent critical habitat.

The critical habitat designation is defined by the map or maps, as modified by any accompanying regulatory text, presented at the end of this document in the **Regulation Promulgation** section. We include more detailed information on the boundaries of the critical habitat designation in the preamble of this document. We will make the coordinates or plot points or both on which each map is based available to the public on <http://www.regulations.gov> at Docket No. FWS–R4–ES–2013–0029, on our Internet site at <http://www.fws.gov/verobeach/>, and at the field office responsible for the designation (see **FOR FURTHER INFORMATION CONTACT**, above).

### **Final Critical Habitat Designation**

We are designating nine units as critical habitat for *Chromolaena frustrata*. The critical habitat areas described below constitute our best assessment at this time of areas that meet the definition of critical habitat for *C. frustrata*. The nine units are: (1) Everglades National Park (ENP); (2) Key Largo; (3) Upper Matecumbe Key; (4) Lignumvitae Key; (5) Lower Matecumbe Key; (6) Long Key; (7) Big Pine Key; (8) Big Munson Island; and (9) Boca Grande Key. Land ownership within the critical habitat consists of Federal (70 percent), State (23 percent), and private and other (6 percent). Table 1 summarizes these units.

TABLE 1. *Chromolaena frustrata* critical habitat units.

Unit Number	Unit Name	Ownership	Percent	Acres	Hectares	Occupied
1	Everglades	Federal	100	6,166	2,495	yes

	National Park	<i>Total</i>	<i>100</i>	<i>6,166</i>	<i>2,495</i>	
2	Key Largo	Federal	23	804	325	no
		State	63	2,170	878	
		Private	13	457	185	
		<i>Total</i>	<i>100</i>	<i>3,431</i>	<i>1,388</i>	
3	Upper	State	34	24	10	yes
	Matecumbe	Private	66	45	18	
	Key	<i>Total</i>	<i>100</i>	<i>69</i>	<i>28</i>	
4	Lignumvitae	State	100	180	73	yes
	Key	<i>Total</i>	<i>100</i>	<i>180</i>	<i>73</i>	
5	Lower	State	49	22	9	yes
	Matecumbe	Private	51	22	9	
	Key	<i>Total</i>	<i>100</i>	<i>44</i>	<i>18</i>	
6	Long Key	State	73	151	61	yes
		Private	27	57	23	
		<i>Total</i>	<i>100</i>	<i>208</i>	<i>84</i>	
7	Big Pine Key	Federal	88	686	278	no
		Private	12	94	38	
		<i>Total</i>	<i>100</i>	<i>780</i>	<i>316</i>	
8	Big Munson	Private	100	28	11	yes
	Island	<i>Total</i>	<i>100</i>	<i>28</i>	<i>11</i>	
9	Boca Grande	Federal	100	62	25	yes
	Key	<i>Total</i>	<i>100</i>	<i>62</i>	<i>25</i>	
<b>Total</b>		<b>Federal</b>	<b>70</b>	<b>7,718</b>	<b>3,123</b>	
<b>All Units</b>			<b>percent</b>			

	<b>State</b>	<b>23</b> <b>percent</b>	<b>2,547</b>	<b>1,031</b>	
	<b>Private</b> <b>and Other</b>	<b>6percent</b>	<b>703</b>	<b>284</b>	
	<b>All</b>		<b>10,968</b>	<b>4,439</b>	

Note: Area sizes may not sum due to rounding

We present brief descriptions of all units, and reasons why they meet the definition of critical habitat for *Chromolaena frustrata*, below.

*Unit 1: Everglades National Park, Monroe County and Miami-Dade County*

Unit 1 consists of a total of 6,166 ac (2,495 ha) in Monroe and Miami-Dade Counties. This unit is composed entirely of lands in Federal ownership, 100 percent of which are located within the Everglades National Park along the southern coast of Florida from Cape Sable to Trout Cove, located between the mean high water line to approximately 2.5 mi (4.02 km) inland. This unit is currently occupied and contains all the physical or biological features required by the species. The unit contains coastal hardwood hammock and buttonwood forest primary constituent elements. The physical or biological features in this unit may require special management considerations or protection to address threats of nonnative plant species and sea-level rise. The National Park Service conducts nonnative species control and monitors *Chromolaena frustrata* occurrences in ENP.

*Unit 2: Key Largo, Monroe County*

Unit 2 consists of a total of 3,431 ac (1,388 ha) in Monroe County. This unit is composed of Federal lands within Crocodile Lake National Wildlife Refuge (NWR) (804 ac (325 ha)); State lands within Dagny Johnson Botanical State Park, John Pennekamp Coral Reef State Park, and the Florida Keys Wildlife and Environmental Area (2,170 ac (878 ha)); and parcels in private ownership (457 ac (185 ha)).

This unit extends from near the northern tip of Key Largo, along the length of Key Largo, beginning at the south shore of Ocean Reef Harbor near South Marina Drive and the intersection of County Road (CR) 905 and Clubhouse Road on the west side of CR 905, and between CR 905 and Old State Road 905, then extending to the shoreline south of South Harbor Drive. The unit then continues on both sides of CR 905 through the Crocodile Lake NWR, Dagny Johnson Key Largo Hammock Botanical State Park, and John Pennekamp Coral Reef State Park. The unit then terminates near the junction of U.S. 1 and CR 905 and Garden Cove Drive. The unit resumes on the east side of U.S. 1 from South Andros Road to Key Largo Elementary School; then from intersection of Taylor Drive and Pamela Street to Avenue A; then from Sound Drive to the intersection of Old Road and Valencia Road; then resumes on the east side of U.S. 1 from Hibiscus Lane and Ocean Drive. The unit continues south near the Port Largo Airport from Poisonwood Road to Bo Peep Boulevard. The unit resumes on the west side of U.S. 1 from the intersection of South Drive and Meridian Avenue to Casa Court Drive. The unit then continues on the west side of U.S. 1 from the point on the coast directly west of Peace Avenue south to Caribbean Avenue. The unit also includes a portion of El Radabob Key.

This unit is not currently occupied but is essential for the conservation of the species because it serves to protect habitat needed to recover the species, reestablish wild populations within the historical range of the species, and maintain populations throughout the historical distribution of the species in the Florida Keys. It also provides area for recovery in the case of stochastic events that otherwise would eliminate the species from the one or more locations it is presently found. The Service conducts nonnative species control efforts at Crocodile Lake NWR, and FDACS conducts nonnative species control efforts at Dagny Johnson Botanical State Park, John Pennekamp Coral Reef State Park, and the Florida Keys Wildlife and Environmental Area.

*Unit 3: Upper Matecumbe Key, Monroe County*

Unit 3 consists of a total of 69 ac (28 ha) in Monroe County. This unit is composed of State lands within Lignumvitae Key State Botanical Park, Indian Key Historical State Park (24 ac (10 ha)); City of Islamorada lands within the Key Tree Cactus Preserve and Green Turtle Hammock Park and parcels in private ownership (45 ac (18 ha)).

This unit extends from Matecumbe Avenue south to Seashore Avenue along either side of U.S. 1. The unit then continues along the west side of U.S. 1, including the Green Turtle Hammock Park and a nature preserve owned by the City of Islamorada; straddles U.S. 1 in the vicinity of Indian Key Historical Park; and continues for 0.5 mi (0.8 km) to near the southern tip of Key Largo on the west side of U.S. 1. This unit is currently occupied and contains all the physical or biological features essential for the conservation of the species. It contains the primary constituent elements of coastal berm, coastal rock barren, and rockland hammock.

The physical or biological features in this unit may require special management considerations or protection to address threats of small population size, nonnative species, and sea-level rise. FDACS conducts nonnative species control efforts in Lignumvitae Key State Botanical Park and Indian Key Historical State Park.

*Unit 4: Lignumvitae Key, Monroe County*

Unit 4 consists of a total of 180 ac (73 ha) in Monroe County. This unit is composed entirely of lands in State ownership, 100 percent of which are located within the Lignumvitae Key Botanical State Park (LKBSP) on Lignumvitae Key in the Florida Keys. This unit includes the entire upland area of Lignumvitae Key.

This unit is currently occupied and contains all the physical or biological features essential for the conservation of the species. This unit includes all the primary constituent of rockland hammock and buttonwood forest habitat that occur within LKBSP on Lignumvitae Key. The physical or biological features in this unit may require special management considerations or protection to address threats of small population size, nonnative species, and sea-level rise. FDACS conducts nonnative species control efforts at LKBSP.

*Unit 5: Lower Matecumbe Key, Monroe County*

Unit 5 consists of a total of 44 ac (18 ha) in Monroe County. The unit is composed of State lands within Lignumvitae Key Botanical State Park and parcels owned by the Florida Department of Transportation (22 ac (9 ha)); and parcels in private ownership (22 ac (9 ha)).

This unit extends from the east side of U.S. 1 from 0.14 mi (0.2 km) from the north edge of Lower Matecumbe Key, situated across U.S. 1 from Davis Lane and Tiki Lane. The unit continues on either side of U.S. 1 approximately 0.4 mi (0.6 km) from the north edge of Lower Matecumbe Key for approximately 0.6 mi (0.9 km).

This unit is currently occupied and contains all the physical or biological features essential for the conservation of the species. The physical or biological features in this unit may require special management considerations or protection to address threats of small population size, nonnative species, and sea-level rise. FDACS conducts nonnative species control efforts at Lignumvitae Key Botanical State Park.

#### *Unit 6: Long Key, Monroe County*

Unit 6 consists of a total of 208 ac (84 ha) in Monroe County. This unit is composed of State lands within Long Key State Park (151 ac (61 ha)) and parcels in private ownership (57 ac (23 ha)). The unit extends from the southwestern tip of Long Key along the island's west and south shores.

The unit is currently occupied and contains all the physical or biological features essential to the conservation of the species. It contains the PCEs of coastal berm, coastal rock barren, rockland hammock, and buttonwood forest. The physical or biological features in this unit may require special management considerations or protection to address threats of development, small population size, nonnative species, and sea-level rise. FDACS conducts nonnative species control efforts at Long Key State Park.

#### *Unit 7: Big Pine Key, Monroe County*

Unit 7 consists of a total of 780 ac (316 ha) in Monroe County. This unit is composed of Federal land within the National Key Deer Refuge (NKDR) (686 ac (278 ha)) and parcels in private ownership (94 ac (38 ha)). This unit extends from near the northern tip of Big Pine Key along the eastern shore to the vicinity of Hellenga Drive and Watson Road; from Gulf Boulevard south to West Shore Drive; extending from the southwest tip of Big Pine Key, bordered by Big Pine Avenue and Elma Avenues on the east, Coral and Yacht Club Road, and U.S. 1 on the north, and Industrial Avenue on the east; along Long Beach Drive; and from the southeastern tip of Big Pine Key to Avenue A.

This unit is not currently occupied but is essential for the conservation of the species because it serves to protect habitat needed to recover the species, reestablish wild populations within the historical range of the species, and maintain populations throughout the historical distribution of the species in the Florida Keys. It also provides area for recovery in the case of stochastic events that otherwise hold the potential to eliminate the species from the one or more locations where it is presently found. The Service conducts nonnative species control at the National Key Deer Refuge.

#### *Unit 8: Big Munson Island, Monroe County*

Unit 8 consists of a total of 28 ac (11 ha) in Monroe County. This unit is composed entirely of lands in private ownership, owned by the Boy Scouts of America. This unit is occupied and contains all the physical or biological features essential for the conservation of the

species. It includes all the PCEs of coastal berm, rockland hammock, and buttonwood forest habitat that occur on Big Munson Island.

The physical or biological features in this unit may require special management considerations or protection to address threats of development, recreation, nonnative species, and sea-level rise. No conservation actions are known.

*Unit 9: Boca Grande Key, Monroe County*

Unit 9 consists of a total of 62 ac (25 ha) in Monroe County. This unit is composed entirely of lands in Federal ownership, 100 percent of which is located within the Key West National Wildlife Refuge. This unit is occupied and contains all the physical or biological features essential for the conservation of the species. This unit includes all the primary constituent elements of coastal berm, rockland hammock, and buttonwood forest habitat on the island, comprising the entirety of Boca Grande Key.

The physical or biological features in this unit may require special management considerations or protection to address threats of small population size, nonnative species, and sea-level rise. The Service conducts nonnative species control at the Key West Refuge.

Unit 9 of the critical habitat units for *Chromolaena frustrata* is currently designated as critical habitat under the Act for the wintering piping plover (*Charadrius melodus*, 50 CFR 17.95(b)), and Units 1, 2, 3, 4, 5, and 6 are designated for the American crocodile (*Crocodylus acutus*, 50 CFR 17.95(c)).

## Effects of Critical Habitat Designation

### *Section 7 Consultation*

Section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that any action they fund, authorize, or carry out is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat of such species. In addition, section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any agency action which is likely to jeopardize the continued existence of any species proposed to be listed under the Act or result in the destruction or adverse modification of proposed critical habitat.

Decisions by the 5<sup>th</sup> and 9<sup>th</sup> Circuit Courts of Appeals have invalidated our regulatory definition of “destruction or adverse modification” (50 CFR 402.02) (see *Gifford Pinchot Task Force v. U.S. Fish and Wildlife Service*, 378 F. 3d 1059 (9<sup>th</sup> Cir. 2004) and *Sierra Club v. U.S. Fish and Wildlife Service et al.*, 245 F.3d 434 (5<sup>th</sup> Cir. 2001)), and we do not rely on this regulatory definition when analyzing whether an action is likely to destroy or adversely modify critical habitat. Under the provisions of the Act, we determine destruction or adverse modification on the basis of whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species.

If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. Examples of actions that are subject to the section 7 consultation process are actions on State, tribal, local, or private lands that require a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq.*) or a permit from the Service under section 10 of the Act) or that involve some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency). Federal actions not affecting listed species or critical habitat, and actions on State, tribal, local, or private lands that are not federally funded or authorized, do not require section 7 consultation.

As a result of section 7 consultation, we document compliance with the requirements of section 7(a)(2) through our issuance of:

- (1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or
- (2) A biological opinion for Federal actions that may affect and are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species and/or destroy or adversely modify critical habitat, we provide reasonable and prudent alternatives to the project, if any are identifiable, that would avoid the likelihood of jeopardy and/or destruction or adverse modification of critical habitat. We define “reasonable and prudent alternatives” (at 50 CFR 402.02) as alternative actions

identified during consultation that:

- (1) Can be implemented in a manner consistent with the intended purpose of the action,
- (2) Can be implemented consistent with the scope of the Federal agency's legal authority and jurisdiction,
- (3) Are economically and technologically feasible, and
- (4) Would, in the Director's opinion, avoid the likelihood of jeopardizing the continued existence of the listed species and/or avoid the likelihood of destroying or adversely modifying critical habitat.

Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 require Federal agencies to reinitiate consultation on previously reviewed actions in instances where we have listed a new species or subsequently designated critical habitat that may be affected and the Federal agency has retained discretionary involvement or control over the action (or the agency's discretionary involvement or control is authorized by law). Consequently, Federal agencies sometimes may need to request reinitiation of consultation with us on actions for which formal consultation has been completed, if those actions with discretionary involvement or control may affect subsequently listed species or designated critical habitat.

#### *Application of the "Adverse Modification" Standard*

The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species. Activities that may destroy or adversely modify critical habitat are those that alter the physical or biological features to an extent that appreciably reduces the conservation value of critical habitat for *Chromolaena frustrata*. As discussed above, the role of critical habitat is to support life-history needs of the species and provide for the conservation of the species.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe, in any proposed or final regulation that designates critical habitat, activities involving a Federal action that may destroy or adversely modify such habitat, or that may be affected by such designation.

Activities that may affect critical habitat, when carried out, funded, or authorized by a Federal agency, should result in consultation for *Chromolaena frustrata*. These activities include, but are not limited to:

(1) Actions that would significantly alter the hydrology or substrate, such as ditching or filling. Such activities may include, but are not limited to, road construction or maintenance, and residential, commercial, or recreational development.

(2) Actions that would significantly alter vegetation structure or composition, such as clearing vegetation for construction of residences, facilities, trails, and roads.

(3) Actions that would introduce nonnative species that would significantly alter

vegetation structure or composition. Such activities may include, but are not limited to, residential and commercial development, and road construction.

## **Exemptions**

### *Application of Section 4(a)(3) of the Act*

Section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) provides that: “The Secretary shall not designate as critical habitat any lands or other geographic areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan (INRMP) prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation.” There are no Department of Defense lands with a completed INRMP within the proposed critical habitat designation. Therefore, we are not exempting any lands from this final designation of critical habitat for *Chromolaena frustrata* pursuant to section 4(a)(3)(B)(i) of the Act.

## **Exclusions**

### *Application of Section 4(b)(2) of the Act*

Section 4(b)(2) of the Act states that the Secretary shall designate and make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the

economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if she determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless she determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the statute on its face, as well as the legislative history, is clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor.

Under section 4(b)(2) of the Act, the Secretary may exclude an area from designated critical habitat based on economic impacts, impacts on national security, or any other relevant impacts. In considering whether to exclude a particular area from the designation, we identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, and evaluate whether the benefits of exclusion outweigh the benefits of inclusion. If the analysis indicates that the benefits of exclusion outweigh the benefits of inclusion, the Secretary may exercise her discretion to exclude the area only if such exclusion would not result in the extinction of the species.

#### *Exclusions Based on Economic Impacts*

Under section 4(b)(2) of the Act, we consider the economic impacts of specifying any particular area as critical habitat. In order to consider economic impacts, we prepared a draft economic analysis of the proposed critical habitat designation and related factors (Loomis *et al.*

2013a, entire). The draft analysis, dated April 2013, was made available for public review from July 8, 2013, through August 7, 2013 (78 FR 40669). Following the close of the comment period, a final analysis of the potential economic effects of the proposed designation was developed taking into consideration the public comments and any new information (Loomis *et al.* 2013b, entire).

The intent of the final economic analysis (FEA) is to quantify the economic impacts of all potential conservation efforts for *Chromolaena frustrata*; some of these costs will likely be incurred regardless of whether we designate critical habitat (baseline). The economic impact of the critical habitat designation is analyzed by comparing scenarios both “with critical habitat” and “without critical habitat.” The “without critical habitat” scenario represents the baseline for the analysis, considering protections already in place for the species (e.g., under the Federal listing and other Federal, State, and local regulations). The baseline, therefore, represents the costs incurred regardless of whether critical habitat is designated. The “with critical habitat” scenario describes the incremental impacts associated specifically with the designation of critical habitat for the species. The incremental conservation efforts and associated impacts are those not expected to occur absent the designation of critical habitat for the species. In other words, the incremental costs are those attributable solely to the designation of critical habitat above and beyond the baseline costs; these are the costs we consider in the final designation of critical habitat. The analysis looks retrospectively at baseline impacts incurred since the species was listed, and forecasts both baseline and incremental impacts likely to occur with the designation of critical habitat.

The FEA also addresses how potential economic impacts are likely to be distributed, including an assessment of any local or regional impacts of habitat conservation and the potential effects of conservation activities on government agencies, private businesses, and individuals. The FEA measures lost economic efficiency associated with residential and commercial development and public projects and activities, such as economic impacts on water management and transportation projects, Federal lands, small entities, and the energy industry. Decision-makers can use this information to assess whether the effects of the designation might unduly burden a particular group or economic sector. Finally, the FEA looks retrospectively at costs that occurred between the publication of the final listing rule and the final rule designating critical habitat, and considers those costs that may occur in the 20 years following the designation of critical habitat, which was determined to be the appropriate period for analysis because limited planning information was available for most activities to forecast activity levels for projects beyond a 20-year timeframe. The FEA quantifies economic impacts of *Chromolaena frustrata* conservation efforts associated with the following categories of activity: (1) Commercial, residential and recreational development; (2) Federal land management; and (3) restoration and conservation.

Based on the best available information, including extensive discussions with stakeholders, we estimate the critical habitat designation will result in direct incremental costs of approximately between \$578,000 (at a 7 percent discount rate), \$764,000 (at a 3 percent discount rate), and \$982,000 (not discounted) over the next 20 years, or \$38,000 to \$49,000 on an annual basis depending on the discount rate. We estimate 93 percent of the costs are attributable to Federal land management and restoration and conservation activities, and the remaining costs are

attributable to with development in the area. The majority of these costs is administrative and is borne by Federal and State agencies; however, some costs may be incurred by local governments and businesses. These costs stem from the requirement for Federal agencies to consult with the Service regarding the impacts of their actions, or those that they fund or authorize, on critical habitat.

Our economic analysis did not identify any disproportionate costs that are likely to result from the designation. Consequently, the Secretary is not exercising her discretion to exclude any areas from this designation of critical habitat for *Chromolaena frustrata* based on economic impacts.

A copy of the FEA with supporting documents may be obtained by contacting the South Florida Ecological Services Office (see **ADDRESSES**) or by downloading from the Internet at <http://www.regulations.gov>.

#### *Exclusions Based on National Security Impacts*

Under section 4(b)(2) of the Act, we consider whether there are lands owned or managed by the Department of Defense where a national security impact might exist. In preparing this final rule, we have determined that no lands within the designation of critical habitat for *Chromolaena frustrata* are owned or managed by the Department of Defense, and, therefore, we anticipate no impact on national security. Consequently, the Secretary is not exerting her discretion to exclude any areas from this final designation based on impacts on national security.

### *Exclusions Based on Other Relevant Impacts*

Under section 4(b)(2) of the Act, we consider any other relevant impacts, in addition to economic impacts and impacts on national security. We consider a number of factors, including whether the landowners have developed any HCPs or other management plans for the area, or whether there are conservation partnerships that would be encouraged by designation of, or exclusion from, critical habitat. In addition, we look at any tribal issues, and consider the government-to-government relationship of the United States with tribal entities. We also consider any social impacts that might occur because of the designation.

In preparing this final rule, we have determined that there are currently no HCPs or other management plans for *Chromolaena frustrata*, and the final designation does not include any tribal lands or trust resources. We anticipate no impact on tribal lands, partnerships, or HCPs from this critical habitat designation. Accordingly, the Secretary is not exercising her discretion to exclude any areas from this final designation based on other relevant impacts.

### **Required Determinations**

#### *Regulatory Planning and Review (Executive Orders 12866 and 13563)*

Executive Order 12866 provides that the Office of Information and Regulatory Affairs (OIRA) will review all significant rules. The Office of Information and Regulatory Affairs has determined that this rule is not significant.

Executive Order 13563 reaffirms the principles of E.O. 12866 while calling for improvements in the nation's regulatory system to promote predictability, to reduce uncertainty, and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. The executive order directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this rule in a manner consistent with these requirements.

*Regulatory Flexibility Act (5 U.S.C. 601 et seq.)*

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq.*), as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996 (5 U.S.C 801 *et seq.*), whenever an agency must publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of an agency certifies the rule will not have a significant economic impact on a substantial number

of small entities. The SBREFA amended the RFA to require Federal agencies to provide a certification statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities. In this final rule, we are certifying that the critical habitat designation for *Chromolaena frustrata* will not have a significant economic impact on a substantial number of small entities. The following discussion explains our rationale.

According to the Small Business Administration, small entities include small organizations, such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; as well as small businesses. Small businesses include manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than \$5 million in annual sales, general and heavy construction businesses with less than \$27.5 million in annual business, special trade contractors doing less than \$11.5 million in annual business, and agricultural businesses with annual sales less than \$750,000. To determine if potential economic impacts on these small entities are significant, we consider the types of activities that might trigger regulatory impacts under this rule, as well as the types of project modifications that may result. In general, the term “significant economic impact” is meant to apply to a typical small business firm's business operations.

Importantly, the incremental impacts of a rule must be *both* significant and substantial to prevent certification of the rule under the RFA and to require the preparation of a regulatory flexibility analysis. If a substantial number of small entities are affected by the critical habitat

designation, but the per-entity economic impact is not significant, the Service may certify.

Likewise, if the per-entity economic impact is likely to be significant, but the number of affected entities is not substantial, the Service may also certify.

The Service's current understanding of recent case law is that Federal agencies are only required to evaluate the potential impacts of rulemaking on those entities directly regulated by the rulemaking; therefore, they are not required to evaluate the potential impacts to those entities not directly regulated. The designation of critical habitat for an endangered or threatened species only has a regulatory effect where a Federal action agency is involved in a particular action that may affect the designated critical habitat. Under these circumstances, only the Federal action agency is directly regulated by the designation, and, therefore, consistent with the Service's current interpretation of RFA and recent case law, the Service may limit its evaluation of the potential impacts to those identified for Federal action agencies. Under this interpretation, there is no requirement under the RFA to evaluate the potential impacts to entities not directly regulated, such as small businesses. However, Executive Orders 12866 and 13563 direct Federal agencies to assess costs and benefits of available regulatory alternatives in quantitative (to the extent feasible) and qualitative terms. Consequently, it is the current practice of the Service to assess to the extent practicable these potential impacts if sufficient data are available, whether or not this analysis is believed by the Service to be strictly required by the RFA. In other words, while the effects analysis required under the RFA is limited to entities directly regulated by the rulemaking, the effects analysis under the Act, consistent with the E.O.s' regulatory analysis requirements, can take into consideration impacts to both directly and indirectly impacted entities, where practicable and reasonable.

In conclusion, we believe that, based on our interpretation of directly regulated entities under the RFA and relevant case law, this designation of critical habitat will only directly regulate Federal agencies, which are not by definition small business entities. Accordingly, we certify that this designation of critical habitat will not have a significant economic impact on a substantial number of small business entities. Therefore, a regulatory flexibility analysis is not required. However, in our final economic analysis for this rule, we considered and evaluated the potential effects to third parties that may be involved with consultations with Federal action agencies related to this action.

Designation of critical habitat only affects activities authorized, funded, or carried out by Federal agencies. Some kinds of activities are unlikely to have any Federal involvement and so will not be affected by critical habitat designation. In areas where the species is present, Federal agencies already are required to consult with us under section 7 of the Act on activities they authorize, fund, or carry out that may affect the *Chromolaena frustrata*. Federal agencies also must consult with us if their activities may affect critical habitat. Designation of critical habitat, therefore, could result in an additional economic impact on small entities due to the requirement to reinitiate consultation for ongoing Federal activities (see *Application of the “Adverse Modification” Standard* section).

In our FEA, we evaluated the potential economic effects on small business entities resulting from conservation actions related to the listing of the *Chromolaena frustrata* and the designation of critical habitat. The analysis is based on the estimated impacts associated with the

rulemaking as described in Chapters 4 through 5 and Appendices A and B of the analysis and evaluates the potential for economic impacts related to: (1) Federal land management; (2) commercial, residential, and recreational development; and (3) restoration and conservation.

The threshold for a small governmental jurisdiction is a city, county, town, school district, or special district with a population of less than 50,000. The village of Islamorada, which manages conservation areas within the Upper Matecumbe Key habitat unit, qualifies as a small entity under this definition. Based on communication with the village of Islamorada (2013), current management of these areas, including control of invasive species, is consistent with management expected following the listing and designation of critical habitat for *Chromolaena frustrata*. No incremental impacts are expected to the village of Islamorada.

There is the potential that project proponents for commercial, residential, and recreational development could be small businesses. As discussed in section 4.2 of the FEA, we do not estimate any incremental administrative time or project modifications above existing permitting requirements and restrictions on land clearing associated with development.

In summary, we considered whether this designation will result in a significant economic effect on a substantial number of small entities. Based on the above reasoning and currently available information, we concluded that this rule will not result in a significant economic impact on a substantial number of small entities. Therefore, we are certifying that the designation of critical habitat for *Chromolaena frustrata* will not have a significant economic impact on a substantial number of small entities, and a regulatory flexibility analysis is not required.

*Energy Supply, Distribution, or Use—Executive Order 13211*

Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) requires agencies to prepare Statements of Energy Effects when undertaking certain actions. OMB has provided guidance for implementing this Executive Order that outlines nine outcomes that may constitute “a significant adverse effect” when compared to not taking the regulatory action under consideration.

Appendix A of the economic analysis discusses the potential for critical habitat to affect energy supply, distribution, or use through the additional cost of considering adverse modification in section 7 consultation. The economic analysis finds that none of the seven outcomes relative to significant adverse effect thresholds set forth by the Office of Management and Budget are relevant to this analysis. Thus, based on information in the economic analysis, energy-related impacts associated with *Chromolaena frustrata* conservation activities within critical habitat are not expected. As such, the designation of critical habitat is not expected to significantly affect energy supplies, distribution, or use. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required.

*Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)*

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq.*), we make the following findings:

(1) This rule will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, or tribal governments, or the private sector, and includes both “Federal intergovernmental mandates” and “Federal private sector mandates.” These terms are defined in 2 U.S.C. 658(5)–(7). “Federal intergovernmental mandate” includes a regulation that “would impose an enforceable duty upon State, local, or tribal governments” with two exceptions. It excludes “a condition of Federal assistance.” It also excludes “a duty arising from participation in a voluntary Federal program,” unless the regulation “relates to a then-existing Federal program under which \$500,000,000 or more is provided annually to State, local, and tribal governments under entitlement authority,” if the provision would “increase the stringency of conditions of assistance” or “place caps upon, or otherwise decrease, the Federal Government’s responsibility to provide funding,” and the State, local, or tribal governments “lack authority” to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; Aid to Families with Dependent Children work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement. “Federal private sector mandate” includes a regulation that “would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance or (ii) a duty arising from participation in a voluntary Federal program.”

The designation of critical habitat does not impose a legally binding duty on non-Federal Government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under

section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply, nor would critical habitat shift the costs of the large entitlement programs listed above onto State governments.

(2) We do not believe that this rule will significantly or uniquely affect small governments because it will not produce a Federal mandate of \$100 million or greater in any year, that is, it is not a “significant regulatory action” under the Unfunded Mandates Reform Act. Small governments will be affected only to the extent that any programs having Federal funds, permits, or other authorized activities must ensure that their actions will not adversely affect the critical habitat. The final economic analysis concludes incremental impacts may occur due to administrative costs of section 7 consultations for activities related to commercial, residential, and recreational development and associated actions; however, these are not expected to significantly affect small government entities. Consequently, a Small Government Agency Plan is not required.

#### *Takings—Executive Order 12630*

In accordance with Executive Order 12630 (Government Actions and Interference with Constitutionally Protected Private Property Rights), we have analyzed the potential takings

implications of designating critical habitat for *Chromolaena frustrata* in a takings implications assessment. As discussed above, the designation of critical habitat affects only Federal actions. Although private parties that receive Federal funding or assistance, or that require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. The takings implications assessment concludes that this designation of critical habitat for *Chromolaena frustrata* does not pose significant takings implications for lands within or affected by the designation.

#### *Federalism—Executive Order 13132*

In accordance with Executive Order 13132 (Federalism), this rule does not have significant Federalism effects. A federalism summary impact statement is not required. In keeping with Department of the Interior and Department of Commerce policy, we request information from, and coordinated development of, this critical habitat designation with appropriate State resource agencies in Florida. From a federalism perspective, the designation of critical habitat directly affects only the responsibilities of Federal agencies. The Act imposes no other duties with respect to critical habitat, either for States and local governments, or for anyone else. As a result, the rule does not have substantial direct effects either on the States, or on the relationship between the national government and the States, or on the distribution of powers and responsibilities among the various levels of government. The designation may have some benefit to these governments in that the areas that contain the physical or biological features essential to the conservation of the species are more clearly defined, and the elements of the

physical and biological features of the habitat necessary to the conservation of the species are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist local governments in long-range planning (rather than having them wait for case-by-case section 7 consultations to occur).

Where State and local governments require approval or authorization from a Federal agency for actions that may affect critical habitat, consultation under section 7(a)(2) would be required. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency.

#### *Civil Justice Reform—Executive Order 12988*

In accordance with Executive Order 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and that it meets the applicable standards set forth in sections 3(a) and 3(b)(2) of the Order. We are designating critical habitat in accordance with the provisions of the Act. To assist the public in understanding the habitat needs of the species, the rule identifies the elements of physical or biological features essential to the conservation of *Chromolaena frustrata*. The designated areas of critical habitat are presented on maps, and the rule provides several options for the interested public to obtain more detailed location information, if desired.

*Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)*

This rule does not contain any new collections of information that require approval by OMB under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*). This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

*National Environmental Policy Act (42 U.S.C. 4321 et seq.)*

It is our position that, outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses pursuant to the National Environmental Policy Act in connection with designating critical habitat under the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This position was upheld by the U.S. Court of Appeals for the Ninth Circuit (*Douglas County v. Babbitt*, 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (1996)).

*Government-to-Government Relationship with Tribes*

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951), Executive

Order 13175 (Consultation and Coordination With Indian Tribal Governments), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with tribes in developing programs for healthy ecosystems, to acknowledge that tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to tribes.

We determined that there are no tribal lands occupied by *Chromolaena frustrata* at the time of listing that contain the features essential to conservation of the species, and no tribal lands unoccupied by *C. frustrata* that are essential for the conservation of the species. Therefore, we are not designating critical habitat for *C. frustrata* on tribal lands.

## References Cited

A complete list of all references cited is available on the Internet at <http://www.regulations.gov> and upon request from the, U.S. Fish and Wildlife Service, South Florida Ecological Services Office (see **FOR FURTHER INFORMATION CONTACT**).

## Authors

The primary authors of this rulemaking are the staff members of the U.S. Fish and

Wildlife Service, South Florida Ecological Services Office.

### **List of Subjects in 50 CFR Part 17**

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

### **Regulation Promulgation**

Accordingly, we amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

### **PART 17—[AMENDED]**

1. The authority citation for part 17 continues to read as follows:

**Authority:** 16 U.S.C. 1361–1407; 1531–1544; 4201–4245, unless otherwise noted.

2. Amend § 17.12(h) by revising the entry for *Chromolaena frustrata* under Flowering Plants in the List of Endangered and Threatened Plants to read as follows:

### **§ 17.12 Endangered and threatened plants.**

\* \* \* \* \*

(h) \* \* \*

Species		Historic range	Family	Status	When listed	Critical habitat	Special rules
Scientific name	Common name						
FLOWERING PLANTS * * * * *							
<i>Chromolaena frustrata</i>	Cape Sable thoroughwort	U.S.A. (FL)	Asteraceae	E	826	17.96(a)	NA
		U.S.A. (FL)	NA		E	17.96(h)	NA
* * * * *							

3. Amend § 17.96(a) by adding an entry for “*Chromolaena frustrata* (Cape Sable thoroughwort)” in in alphabetical order under the family Asteraceae, to read as follows:

**§ 17.96 Critical habitat—plants.**

(a) *Flowering plants.*

\* \* \* \* \*

Family Asteraceae: *Chromolaena frustrata* (Cape Sable thoroughwort)

(1) Critical habitat units for *Chromolaena frustrata* are depicted for Miami-Dade and Monroe Counties, Florida, on the maps below.

(2) Within these areas, the primary constituent elements of the physical or biological features essential to the conservation of *Chromolaena frustrata* consist of four components:

(i) Areas of upland habitats consisting of coastal berm, coastal rock barren, coastal hardwood hammock, rockland hammocks, and buttonwood forest.

(A) Coastal berm habitat that contains:

(1) Open to semi-open canopy, subcanopy, and understory; and

(2) Substrate of coarse, calcareous, storm-deposited sediment.

(B) Coastal rock barren (Keys cactus barren, Keys tidal rock barren) habitat that contains:

- (1) Open to semi-open canopy and understory; and
- (2) Limestone rock substrate.

(C) Coastal hardwood hammock habitat occurring in Everglades National Park that contains:

(1) Canopy gaps and edges with an open to semi-open canopy, subcanopy, and understory; and

- (2) Substrate of marl covered with a thin layer of highly organic soil.

(D) Rockland hammock habitat that contains:

(1) Canopy gaps and edges with an open to semi-open canopy, subcanopy, and understory; and

(2) Substrate with a thin layer of highly organic soil, marl, humus, or leaf litter on top of the underlying limestone.

(E) Buttonwood forest habitat that contains:

(1) Open to semi-open canopy and understory; and

- (2) Substrate with calcareous marl muds, calcareous sands, or limestone rock.

(ii) Plant communities of predominately native vegetation with either no invasive, nonnative species or with low enough quantities of nonnative, invasive plant species to have minimal effect on the survival of *Chromolaena frustrata*.

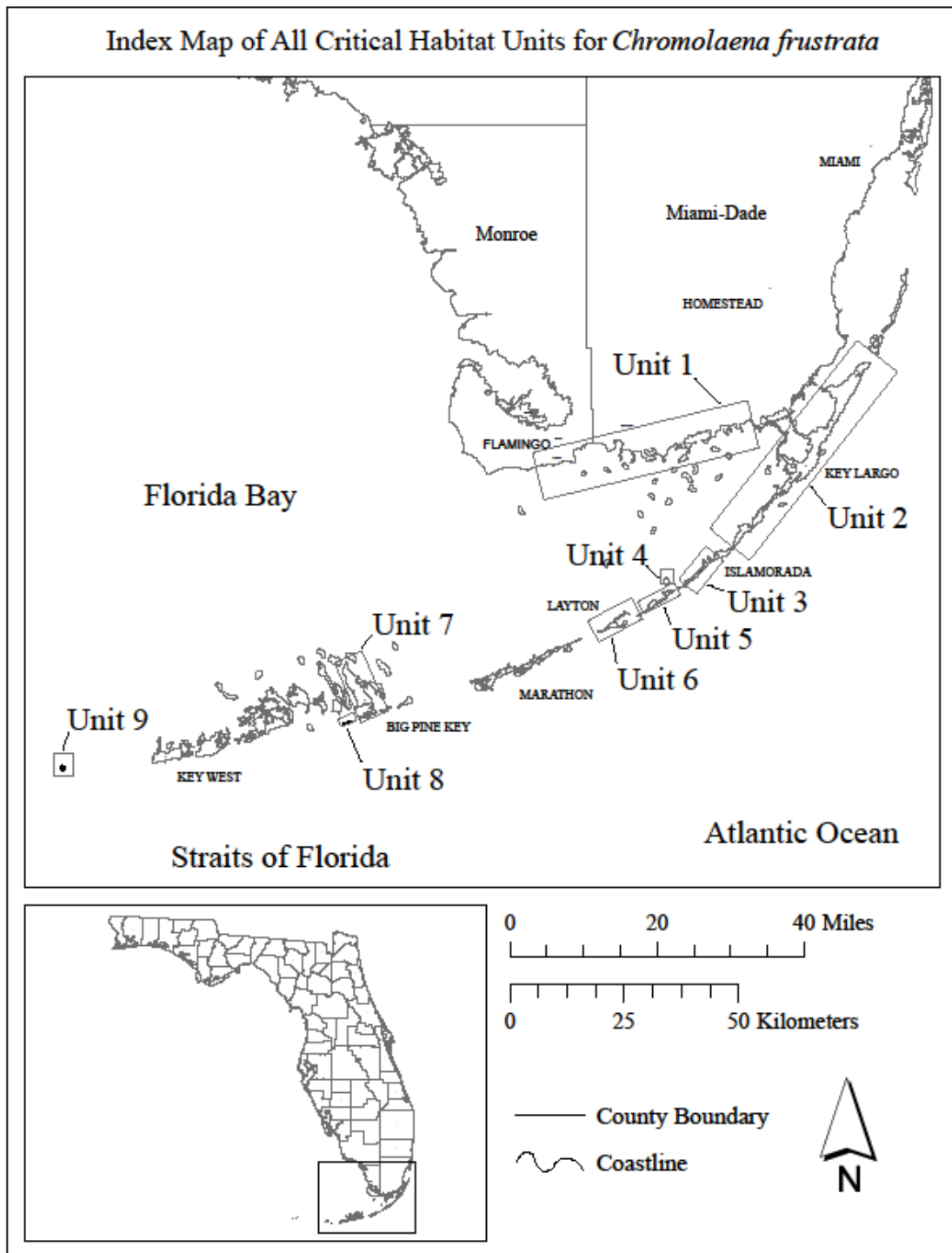
(iii) A disturbance regime, due to the effects of strong winds or saltwater inundation from storm surge or infrequent tidal inundation, that creates canopy openings in coastal berm, coastal rock barren, coastal hardwood hammock, rockland hammocks, and buttonwood forest.

(iv) Habitats that are connected and of sufficient area to sustain viable populations in coastal berm, coastal rock barren, coastal hardwood hammock, rockland hammocks, and buttonwood forest.

(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located exists within the legal boundaries on [INSERT DATE 30 DAYS AFTER DATE OF FEDERAL REGISTER PUBLICATION].

(4) *Critical habitat map units.* Unit maps were developed using ESRI ArcGIS mapping software along with various spatial data layers. ArcGIS was also used to calculate the size of habitat areas. The projection used in mapping and calculating distances and locations within the units was North American Albers Equal Area Conic, NAD 83. The maps in this entry, as modified by any accompanying regulatory text, establish the boundaries of the critical habitat designation. The coordinates or plot points or both on which each map is based are available to the public at the Service's Internet site at <http://www.fws.gov/verobeach/>, on the Federal eRulemaking Portal at <http://www.regulations.gov> at Docket No. FWS-R4-ES-2013-0029, and at the field office responsible for this designation. You may obtain field office location information by contacting one of the Service regional offices, the addresses of which are listed at 50 CFR 2.2.

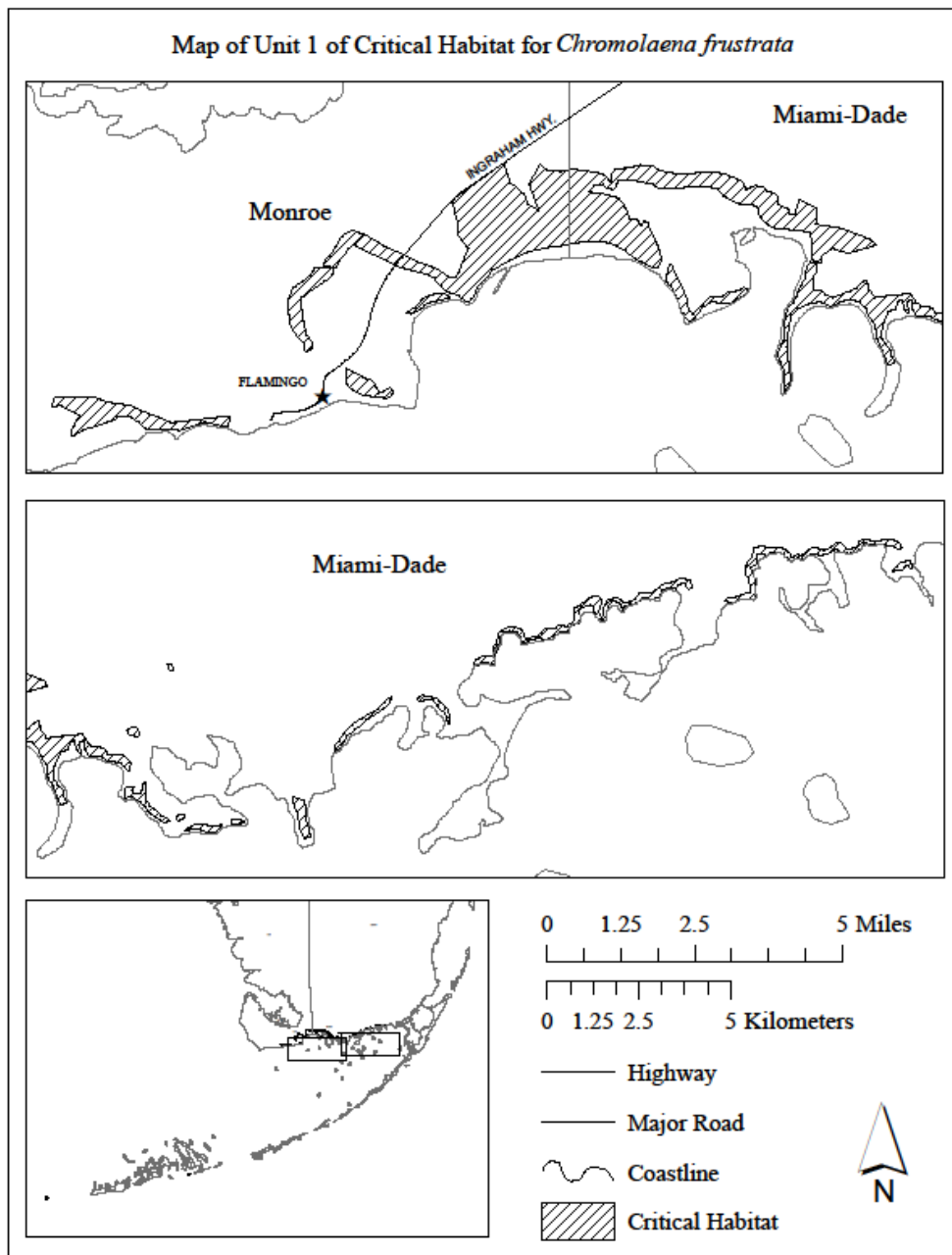
(5) Index map of all critical habitat units for *Chromolaena frustrata* follows:



(6) Unit 1: Everglades National Park, Monroe and Miami-Dade Counties, Florida.

(i) *General Description*: Unit 1 consists of a total of 6,166 acres (2,495 hectares) in Monroe and Miami-Dade Counties. This unit is composed entirely of lands in Federal ownership, 100 percent of which are located within the Everglades National Park.

(ii) Map of Unit 1 follows:

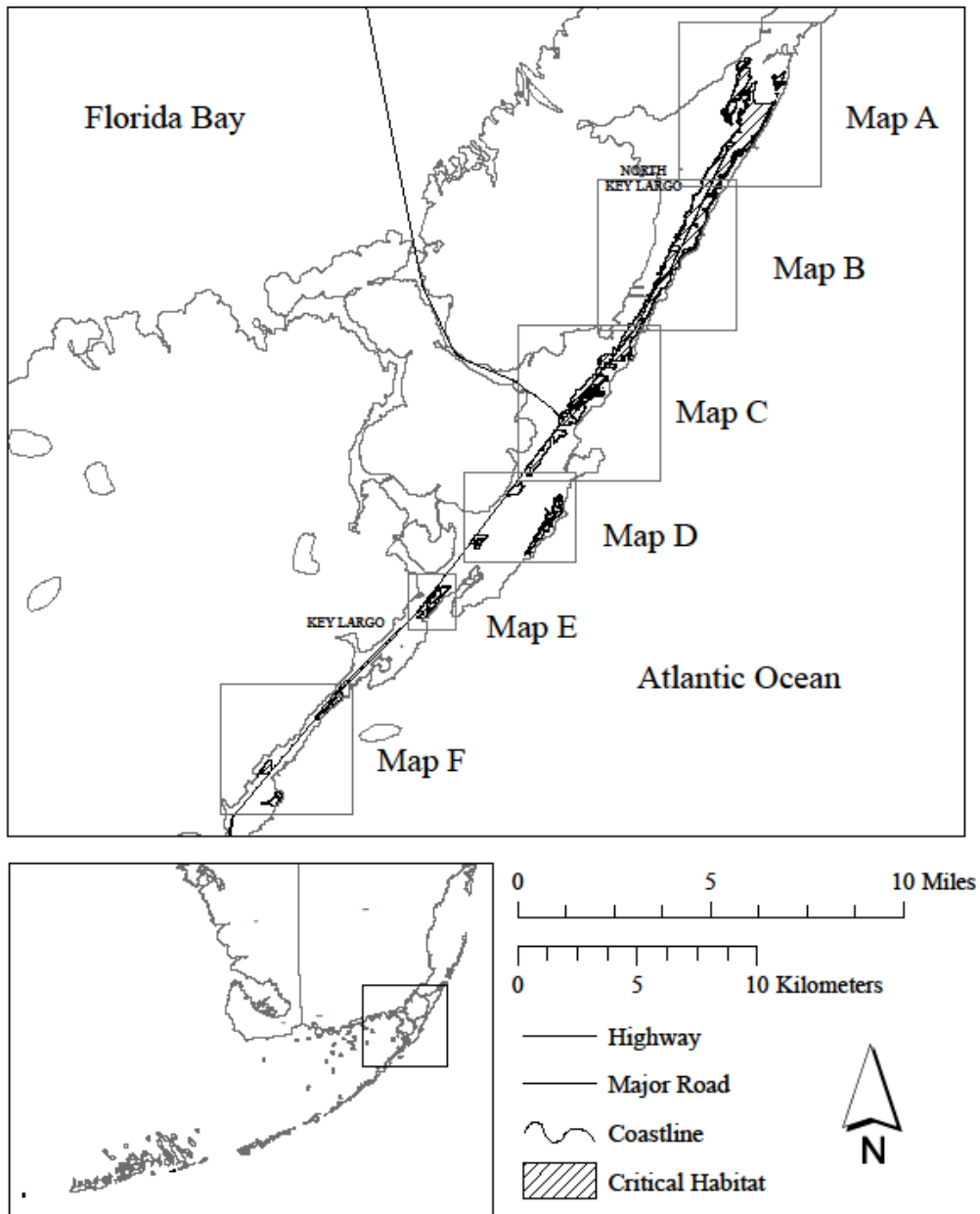


(7) Unit 2: Key Largo, Monroe County, Florida.

(i) *General Description*: Unit 2 consists of a total of 3,431 acres (1,388 hectares) in Monroe County. This unit is composed of Federal lands within Crocodile Lake National Wildlife Refuge (NWR) (804 acres (325 hectares)); State lands within Dagny Johnson Botanical State Park, John Pennekamp Coral Reef State Park, and the Florida Keys Wildlife and Environmental Area (2,170 acres (878 hectares)); and parcels in private ownership (457 acres (185 hectares)).

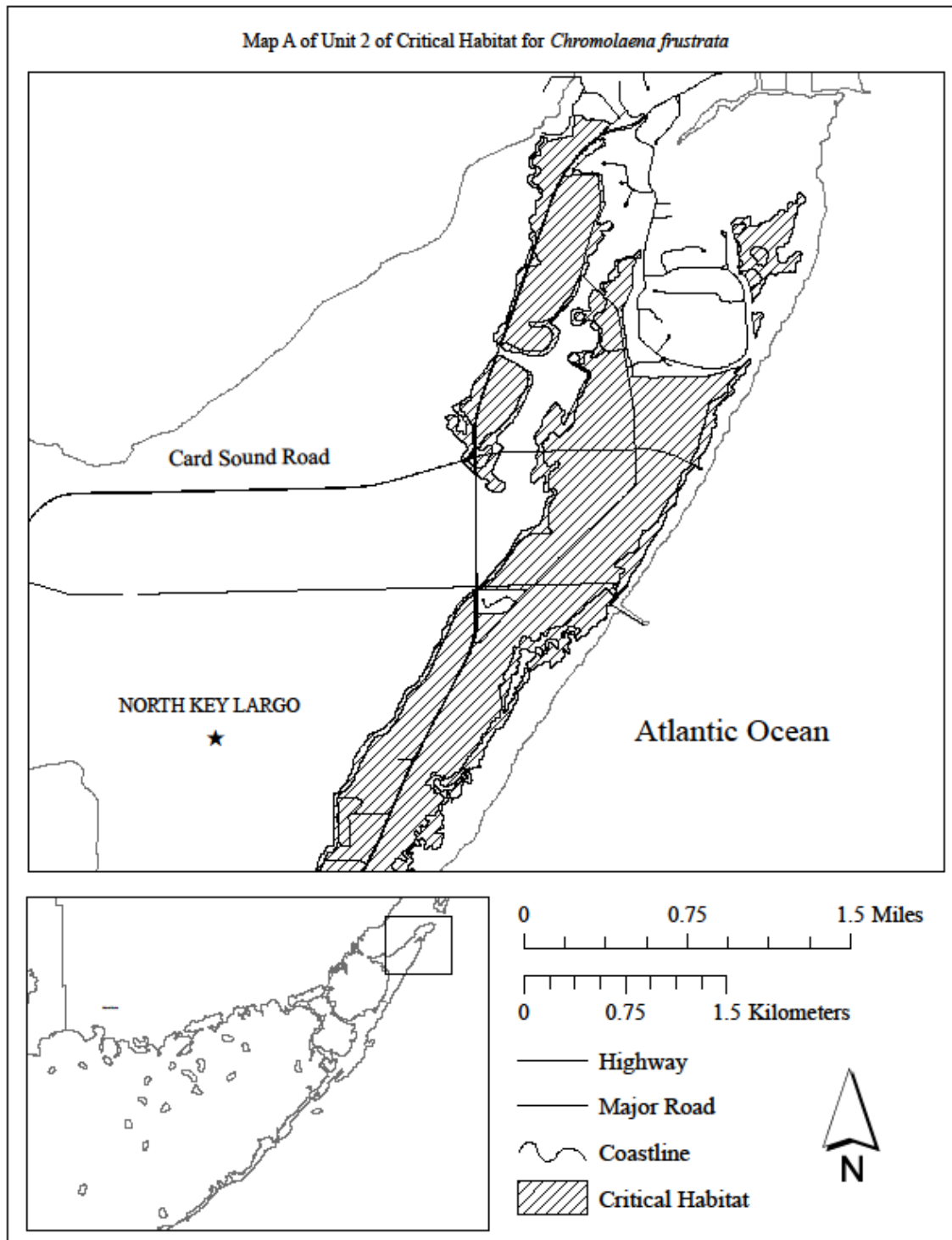
(ii) Index map of Unit 2 follows:

Index Map of Unit 2 of Critical Habitat for *Chromolaena frustrata*

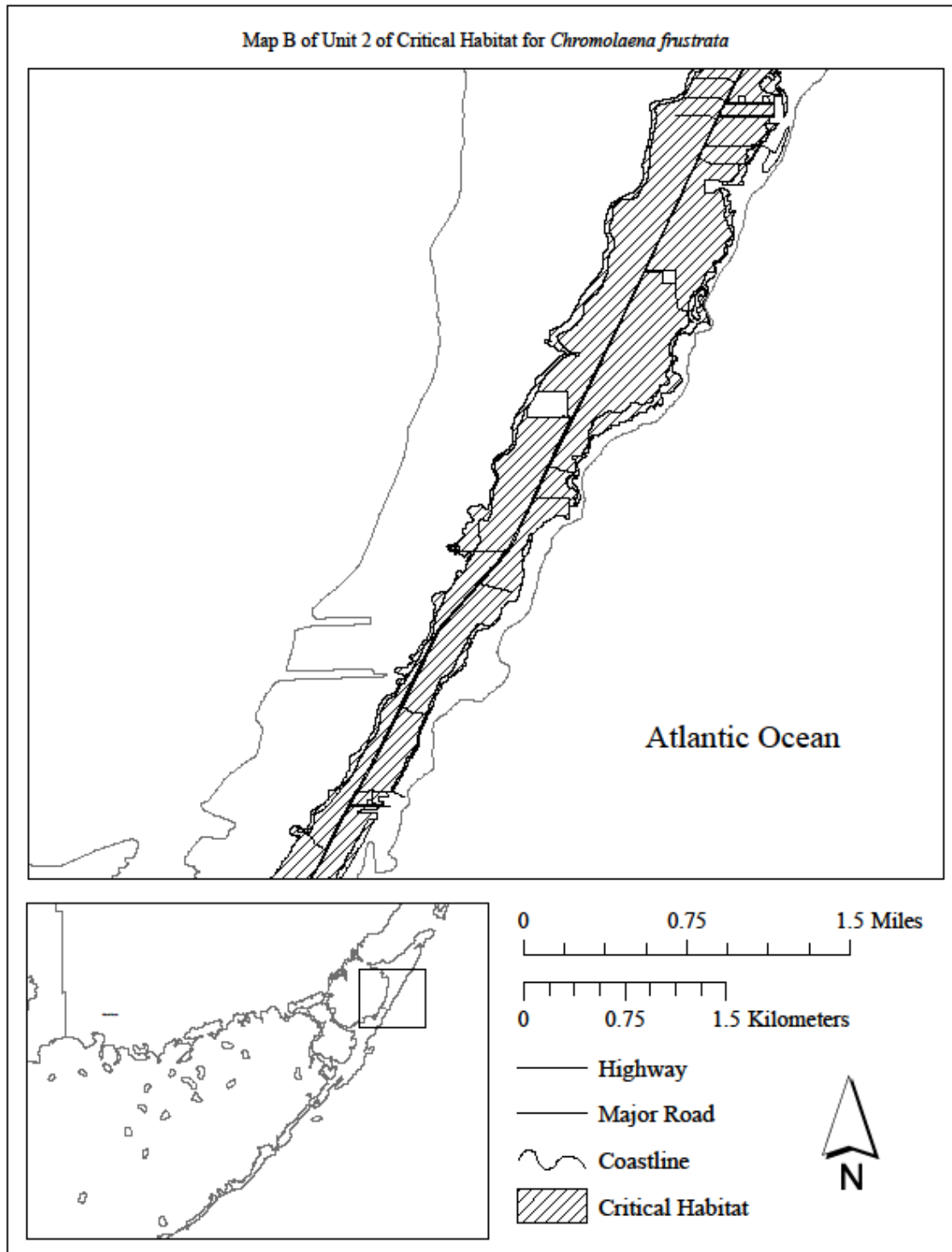


(iii) Map A of Unit 2

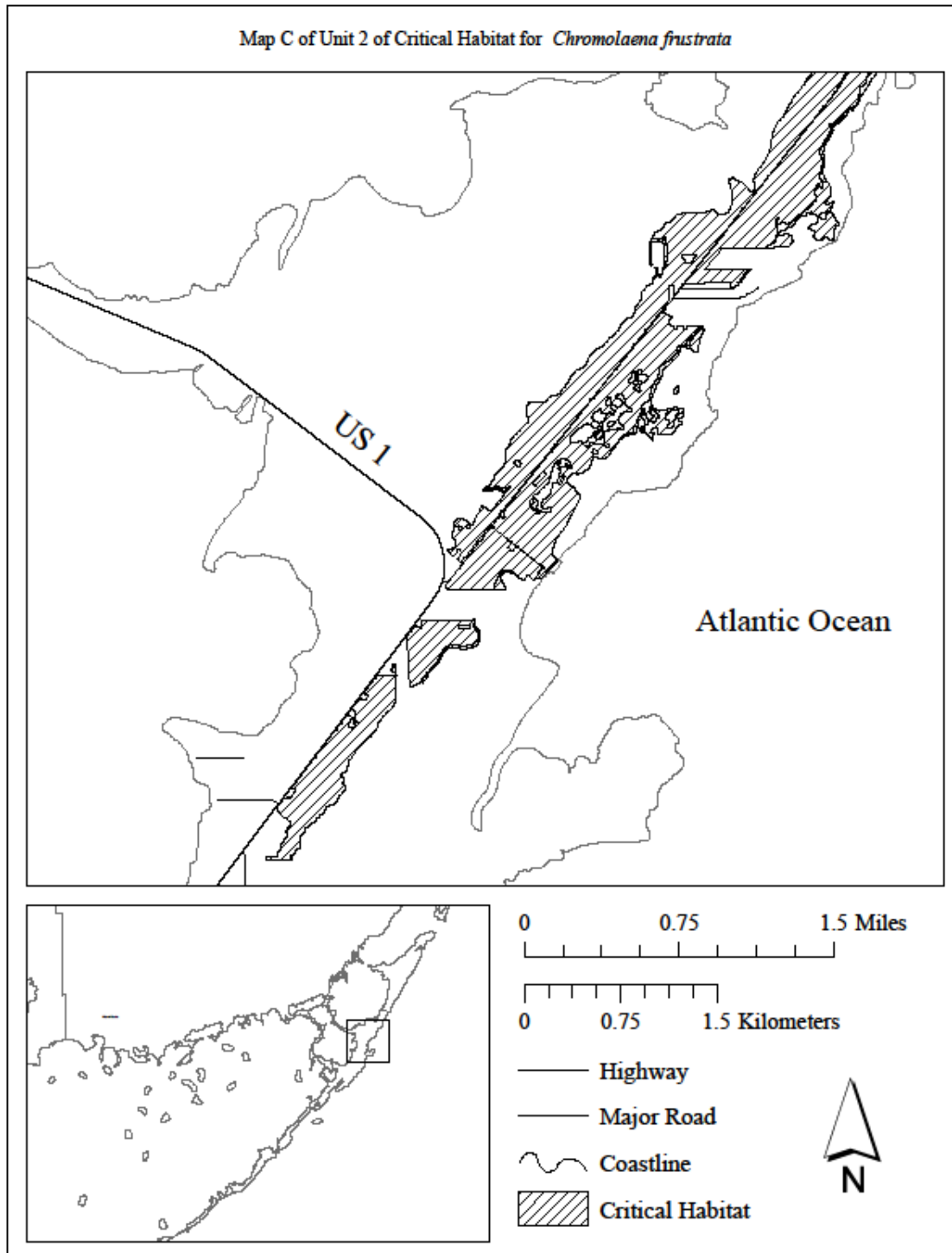
follows:



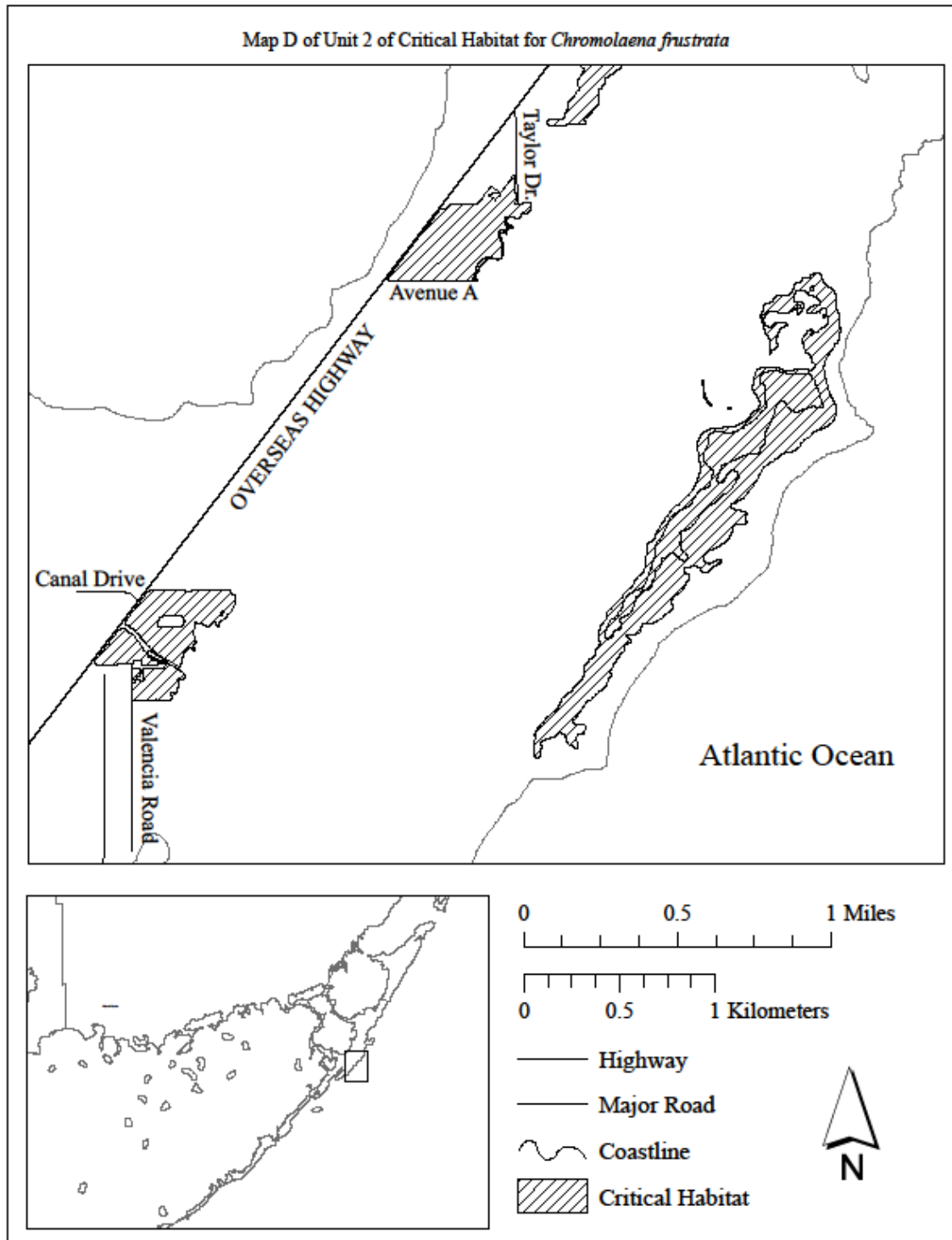
(iv) Map B of Unit 2 follows:



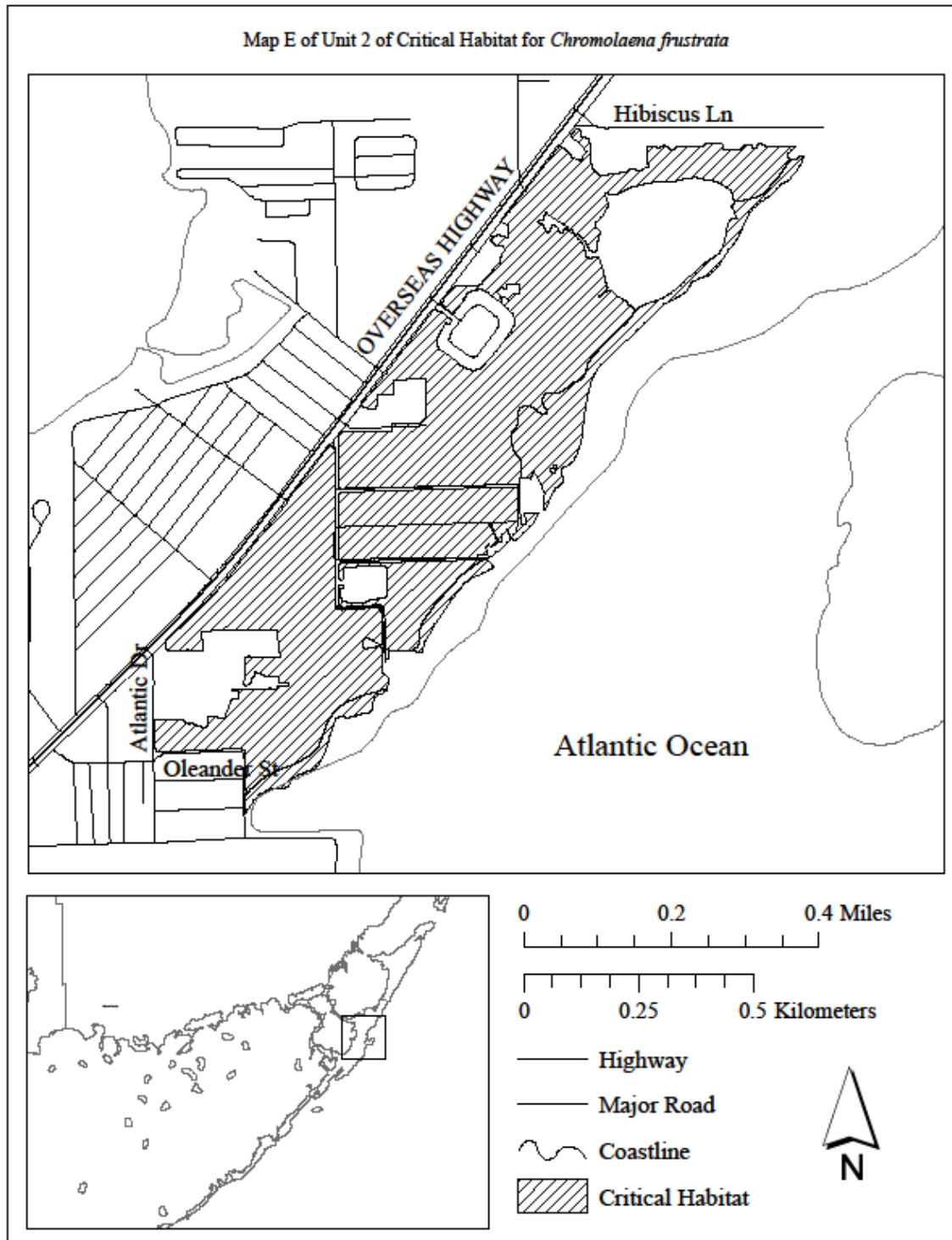
(v) Map C of Unit 2 follows:



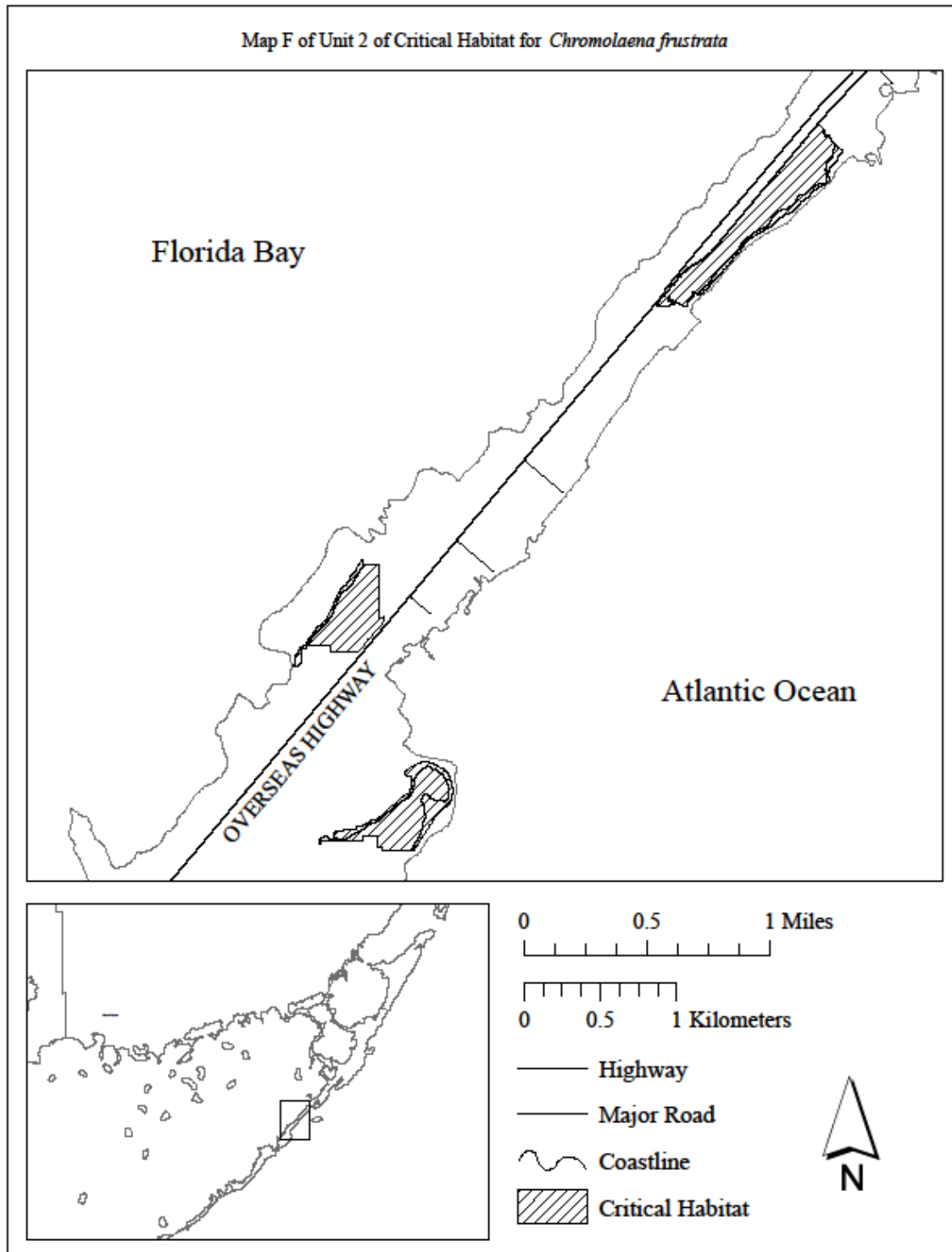
(vi) Map D of Unit 2 follows:



(vii) Map E of Unit 2 follows:



(viii) Map F of Unit 2 follows:



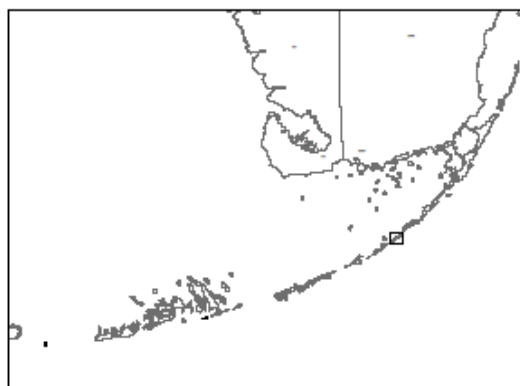
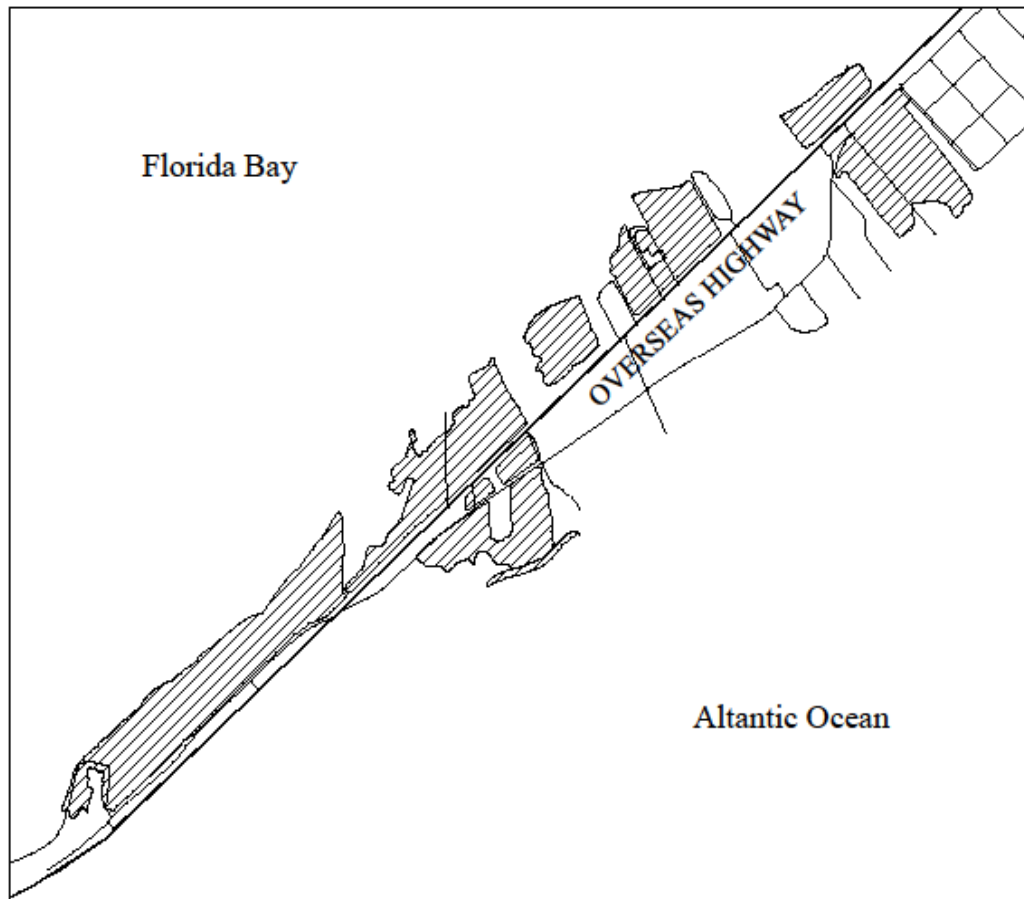
(8) Unit 3: Upper Matecumbe Key, Monroe County, Florida.

(i) *General Description*: Unit 3 consists of 69 acres (28 hectares) in Monroe County.

This unit is comprised of State lands within Lignumvitae Key State Botanical Park, Indian Key Historical State Park (24 acres (10 hectares)); City of Islamorada lands within the Key Tree Cactus Preserve and Green Turtle Hammock Park and parcels in private ownership (45 acres (18 hectares)).

(ii) Map of Unit 3 follows:

Map of Unit 3 of Critical Habitat for *Chromolaena frustrata*



0 0.2 0.4 Miles

0 0.2 0.4 Kilometers

- Highway
- Major Road
- ~ Coastline
- ▨ Critical Habitat



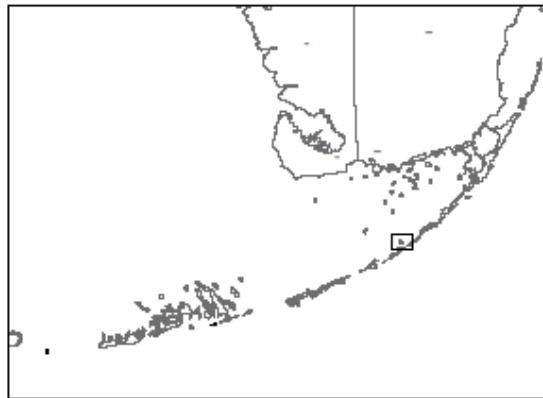
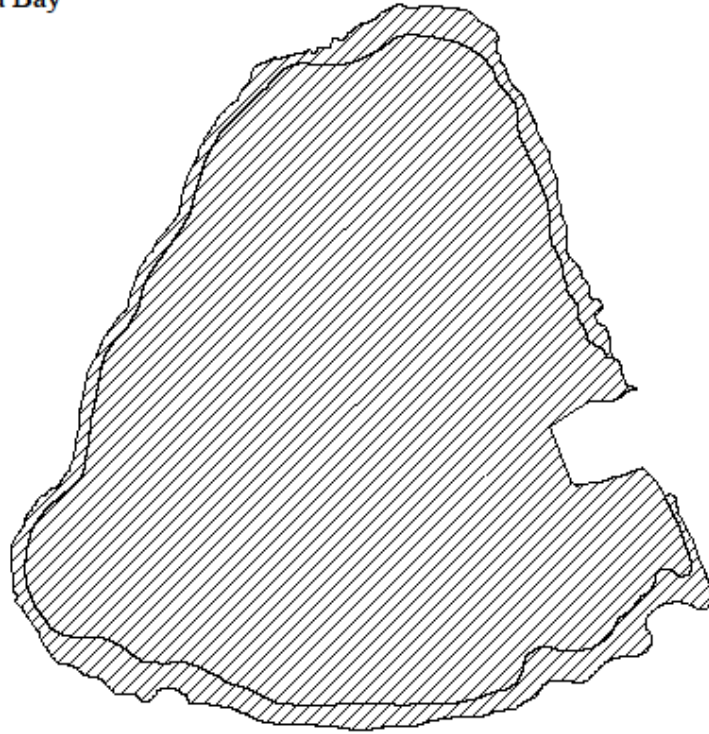
(9) Unit 4: Lignumvitae Key, Monroe County, Florida.

(i) *General Description*: Unit 4 consists of a total of 180 acres (73 hectares) in Monroe County. This unit is composed entirely of lands in State ownership, 100 percent of which are located within the Lignumvitae Key Botanical State Park on Lignumvitae Key in the Florida Keys. This unit includes the entire upland area of Lignumvitae Key.

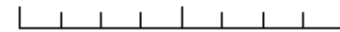
(ii) Map of Unit 4 follows:

Map of Unit 4 of Critical Habitat for *Chromolaena frustrata*

Florida Bay



0 0.15 0.3 Miles



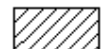
0 0.1 0.2 Kilometers



— Highway

— Major Road

~ Coastline

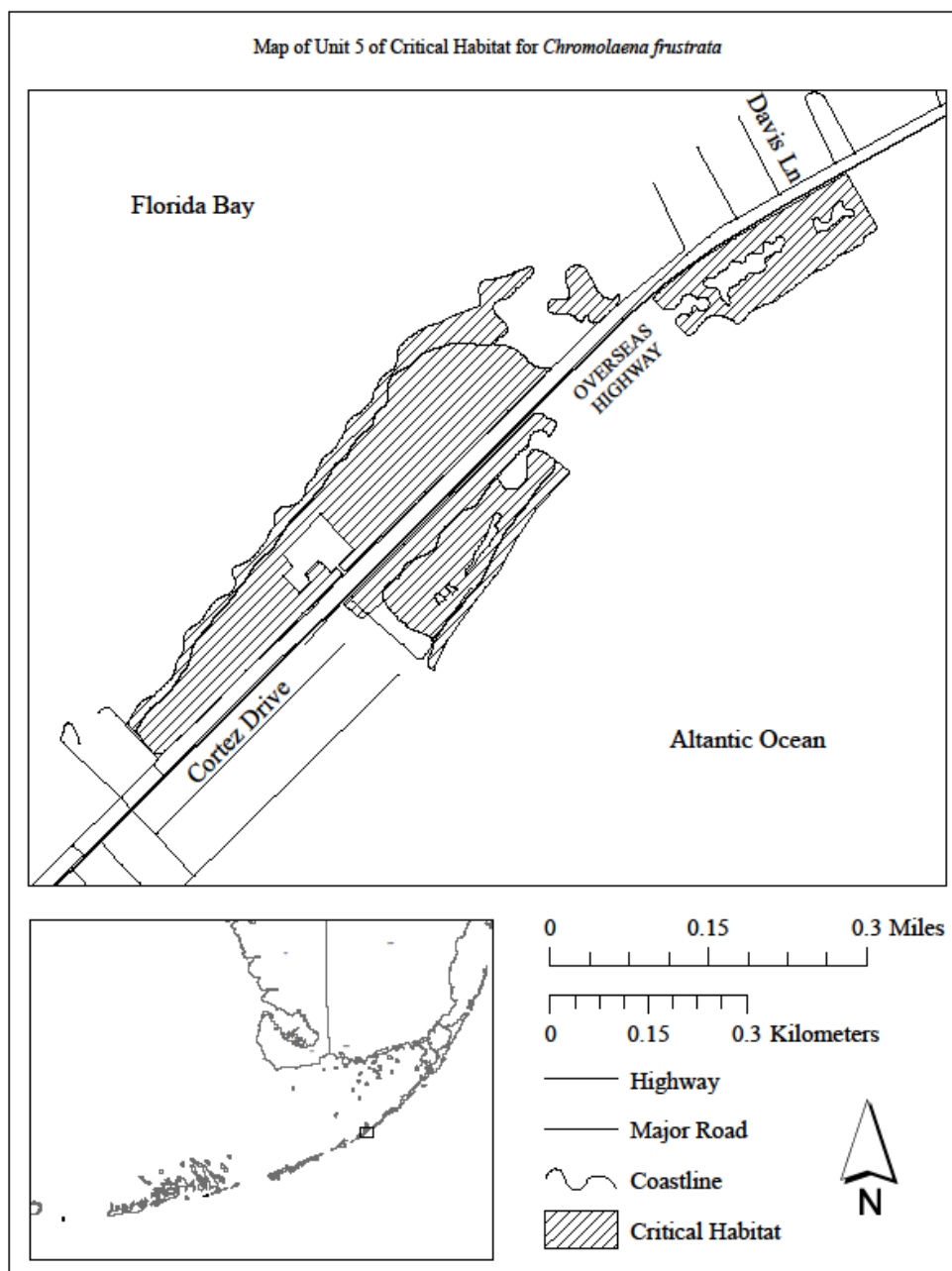
 Critical Habitat



(10) Unit 5: Lower Matecumbe Key, Monroe County, Florida.

(i) *General Description*: Unit 5 consists of a total of 44 acres (18 hectares) in Monroe County. The unit is composed of State lands within Lignumvitae Key Botanical State Park and parcels owned by the Florida Department of Transportation (22 acres (9 hectares)), and parcels in private ownership (22 acres (9 hectares)).

(ii) Map of Unit 5



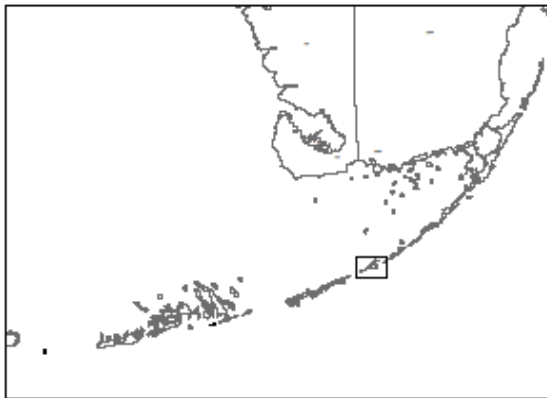
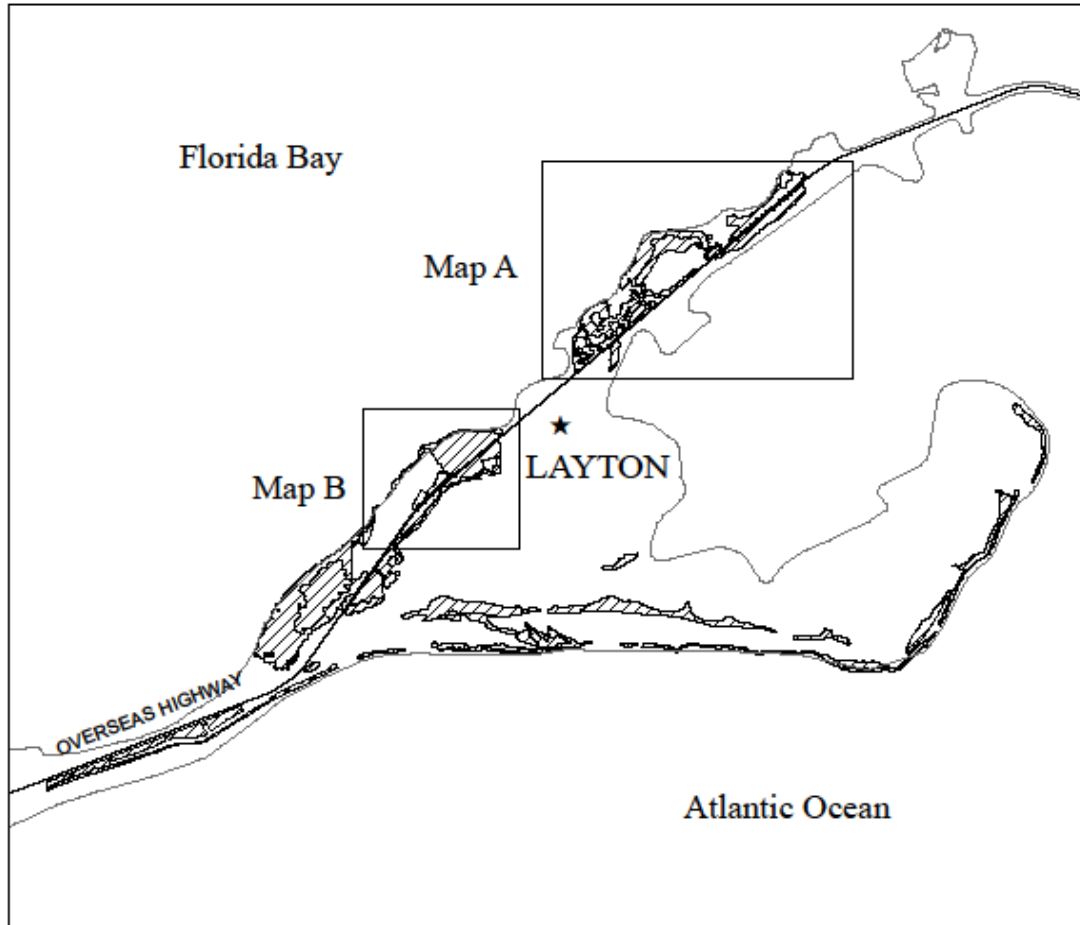
follows:

(11) Unit 6: Long Key, Monroe County, Florida.

(i) *General Description:* Unit 6 consists of a total of 208 acres (84 hectares) in Monroe County. This unit is composed of State lands within Long Key State Park (151 acres (61 hectares)) and parcels in private ownership (57 acres (23 hectares)).

(ii) Index map of Unit 6 follows:

Index Map of Unit 6 of Critical Habitat for *Chromolaena frustrata*



0 0.5 1 Miles

0 0.5 1 Kilometers

— Highway

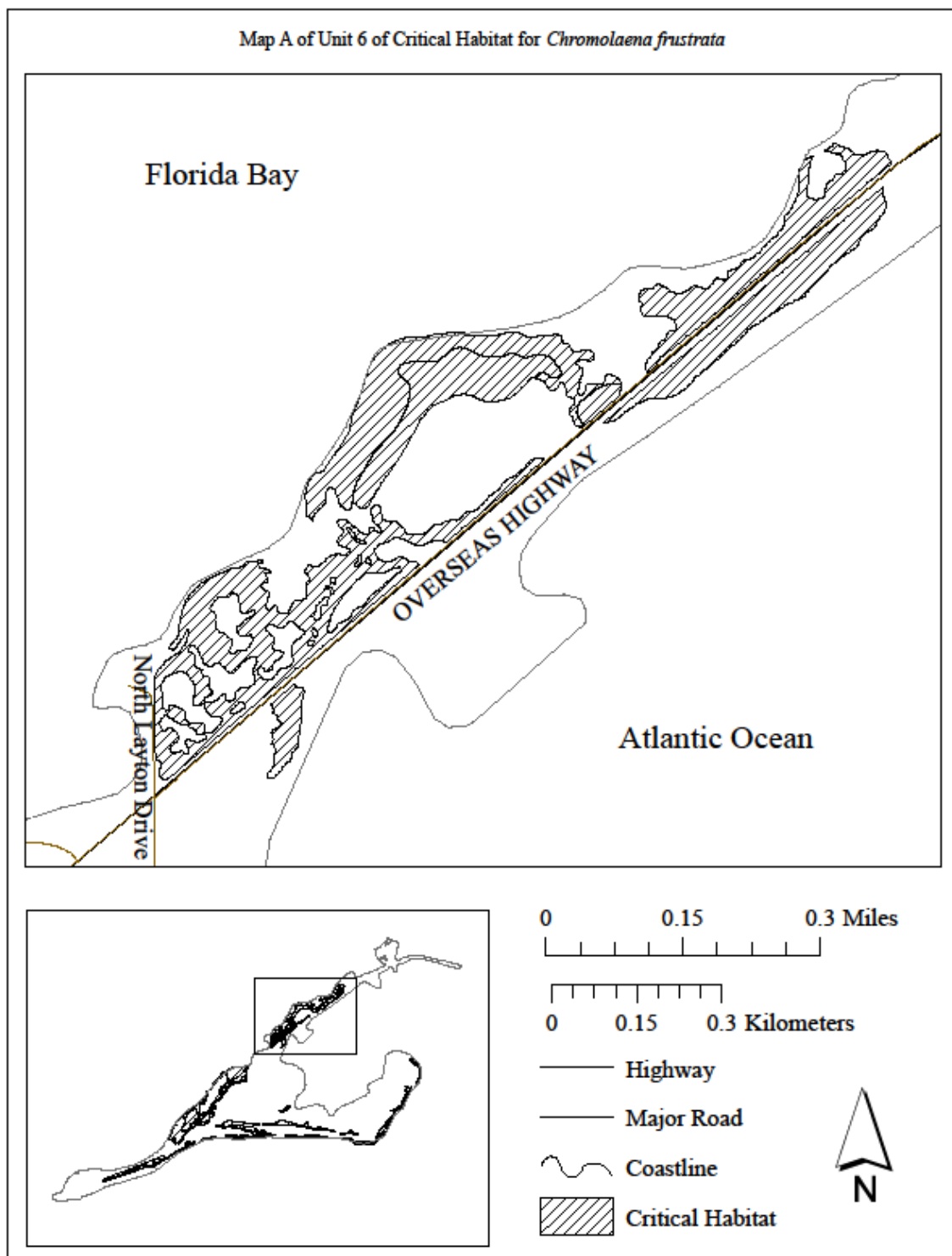
— Major Road

~ Coastline

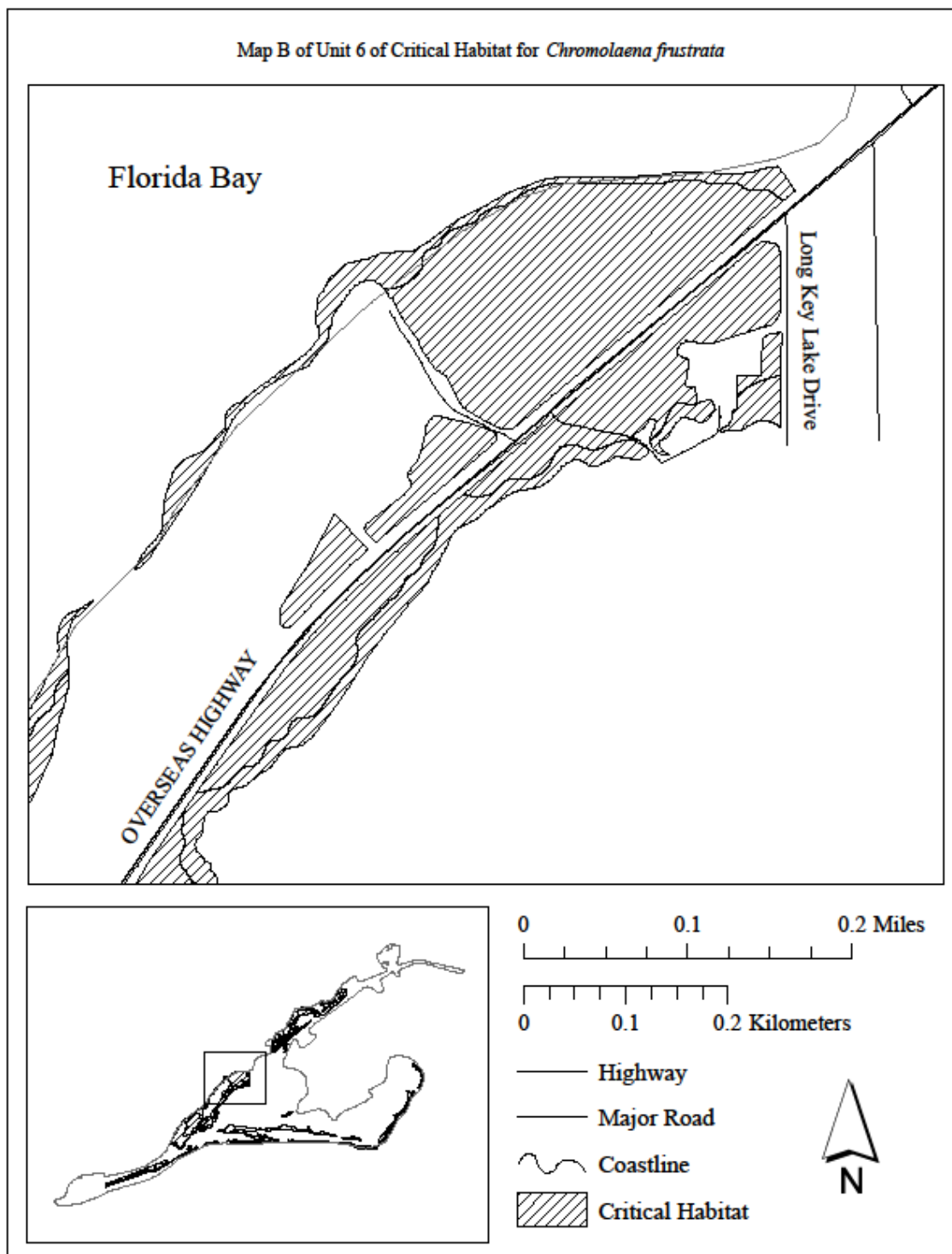
▨ Critical Habitat



(iii) Map A of Unit 6 follows:



(iv) Map B of Unit 6 follows:

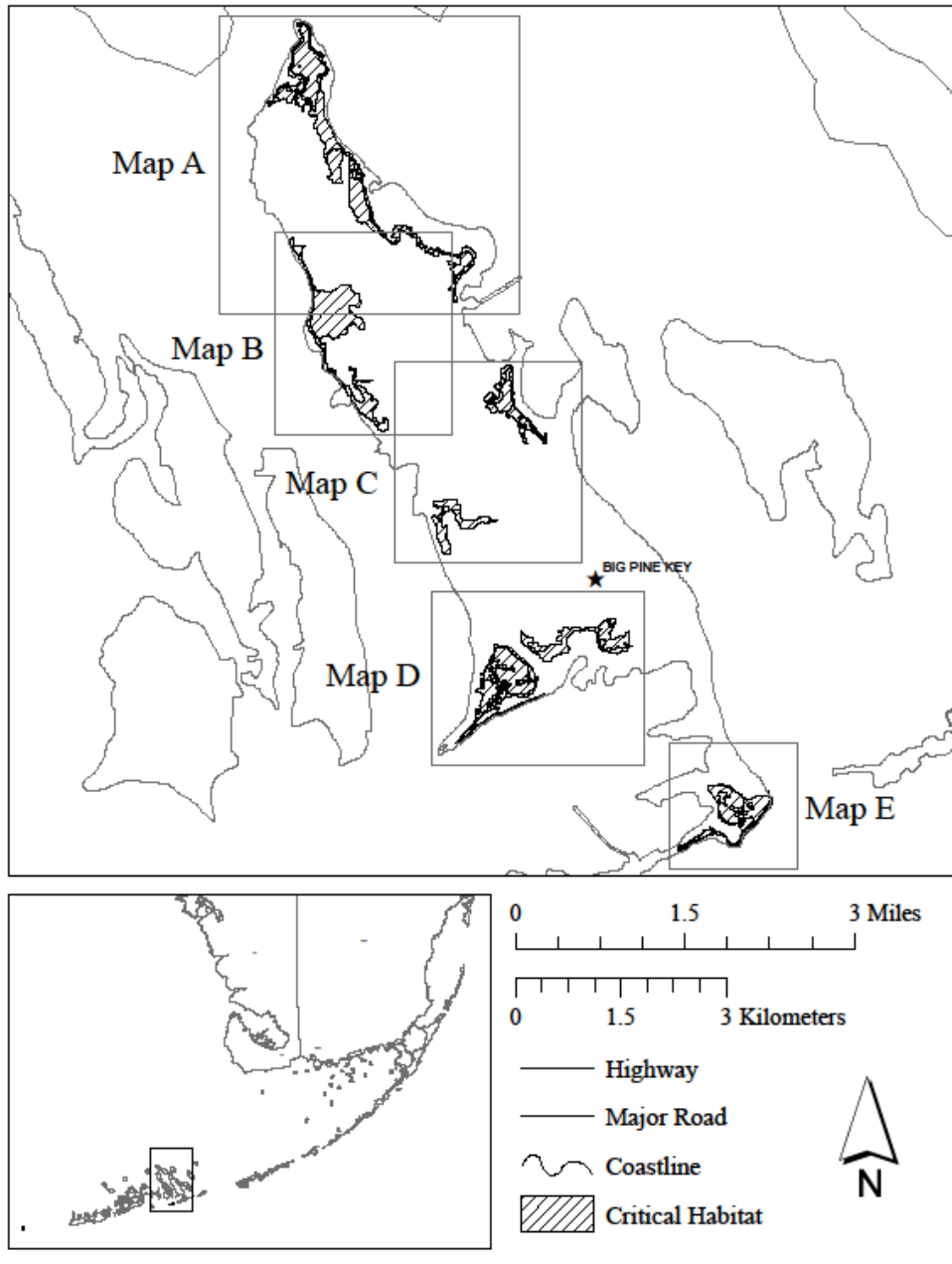


(12) Unit 7: Big Pine Key, Monroe County, Florida.

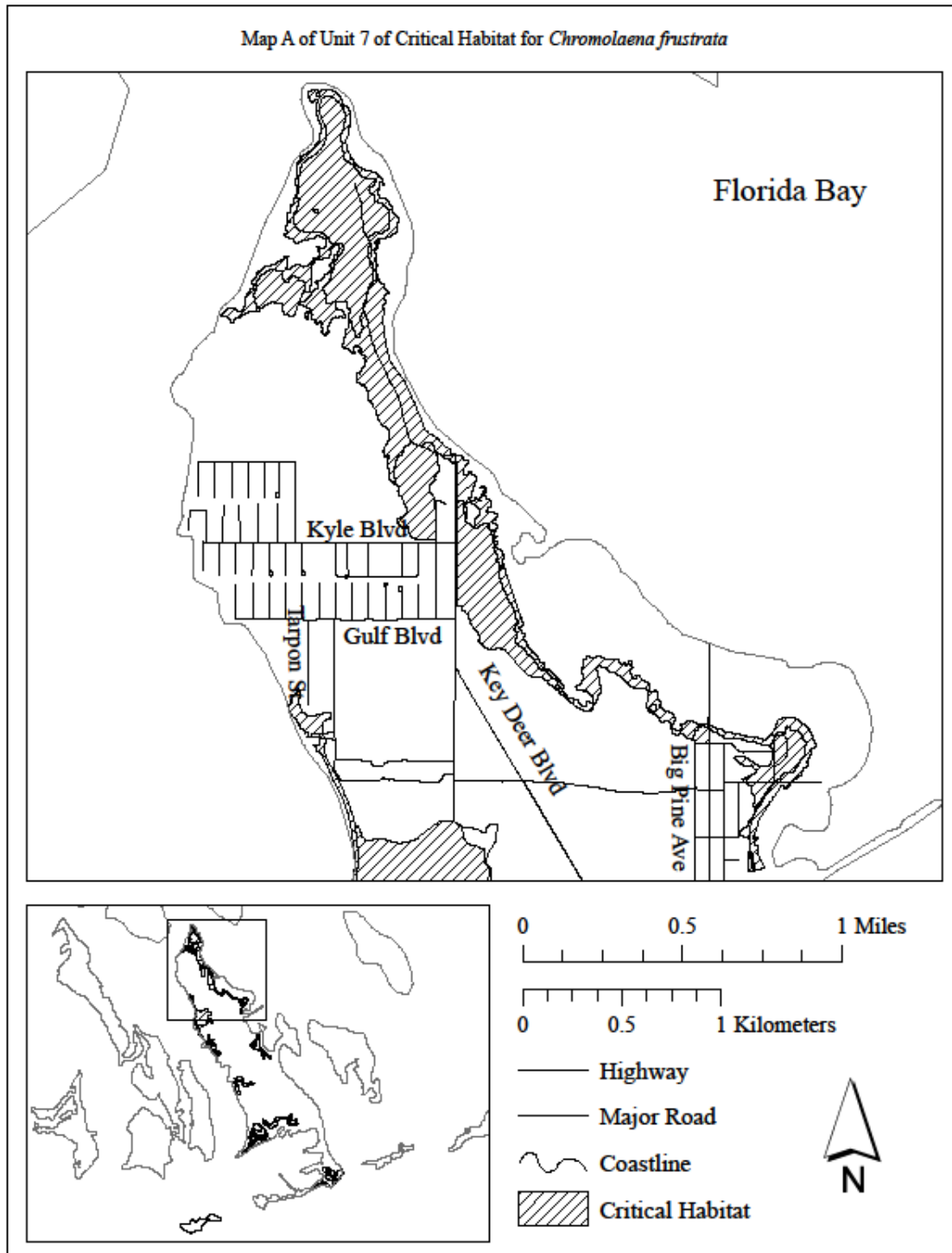
(i) *General Description:* Unit 7 consists of a total of 780 acres (316 hectares) in Monroe County. This unit is composed of Federal land within the National Key Deer Refuge (686 acres (278 hectares)) and parcels in private ownership (94 acres (38 hectares)).

(ii) Index map of Unit 7 follows:

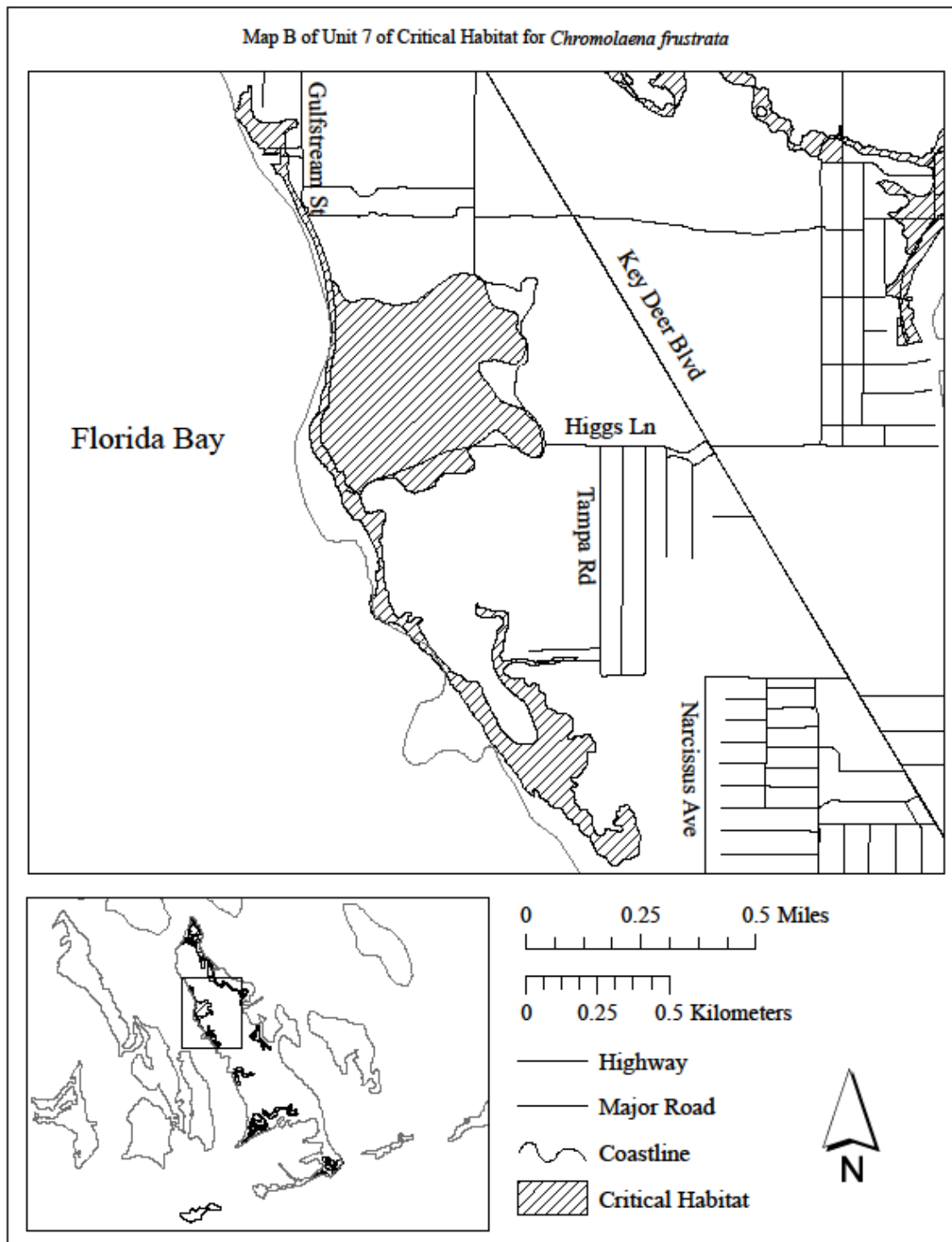
Index Map of Unit 7 of Critical Habitat for *Chromolaena frustrata*



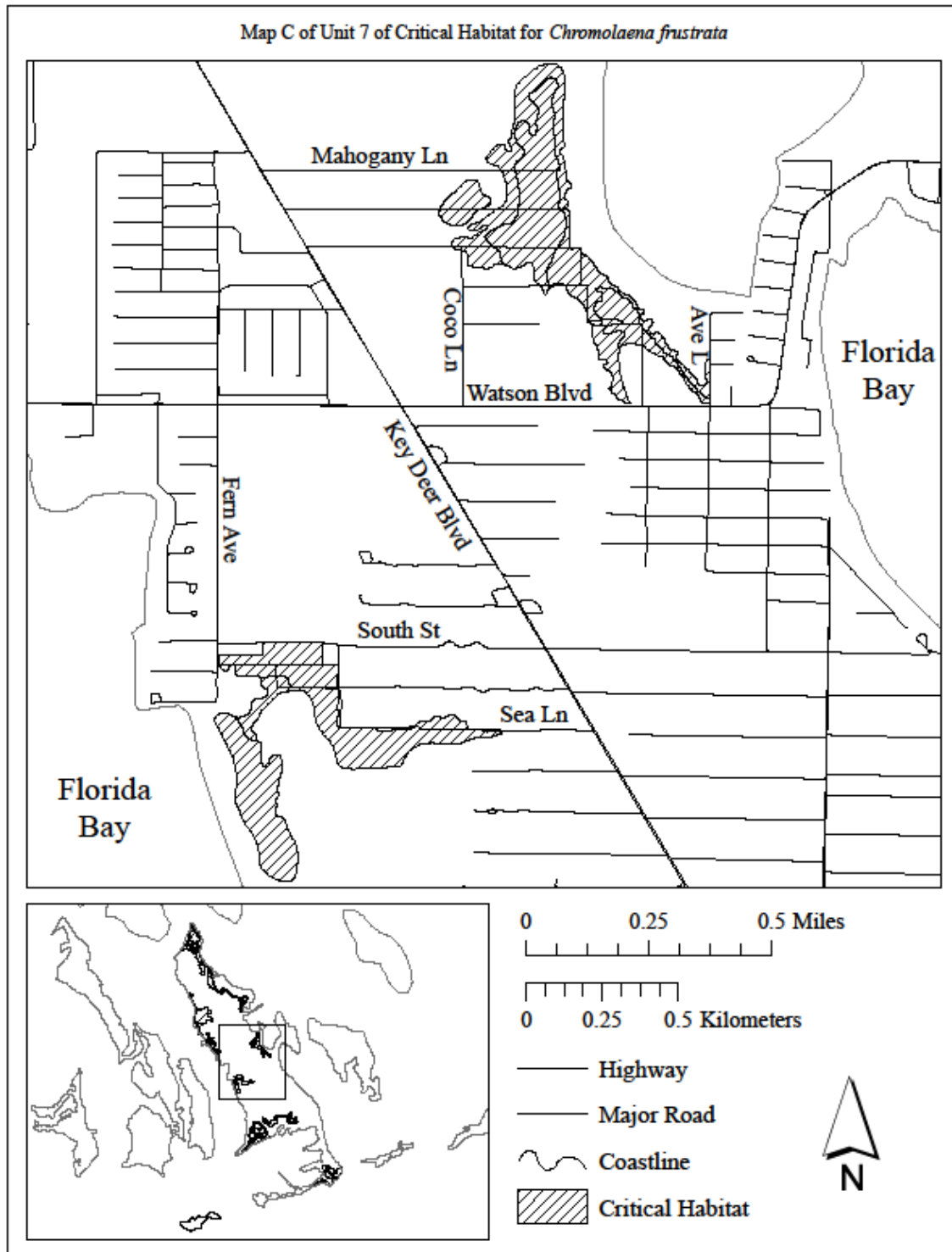
(iii) Map A of Unit 7 follows:



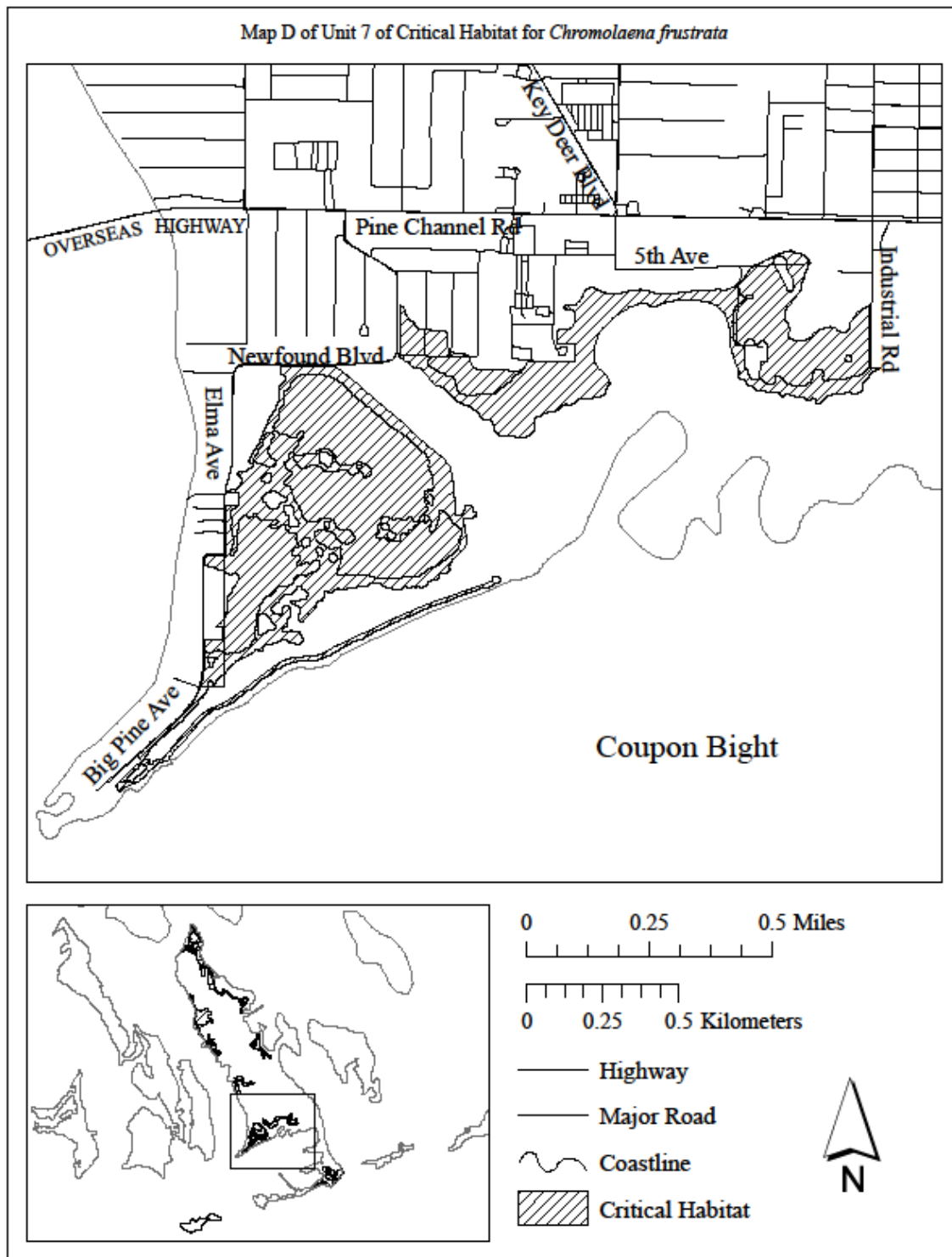
(iv) Map B of Unit 7 follows:



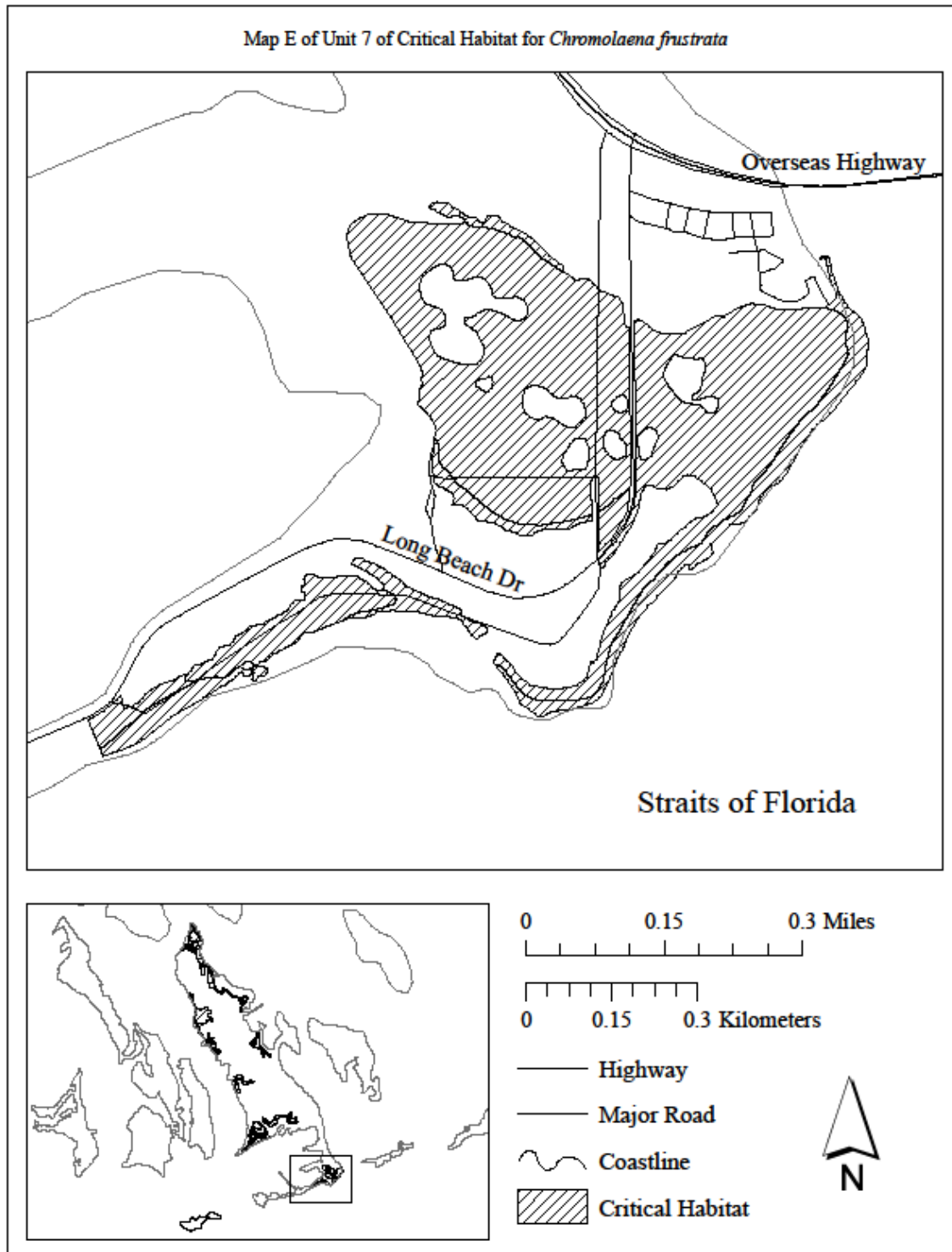
(v) Map C of Unit 7 follows:



(vi) Map D of Unit 7 follows:



(vii) Map E of Unit 7 follows:

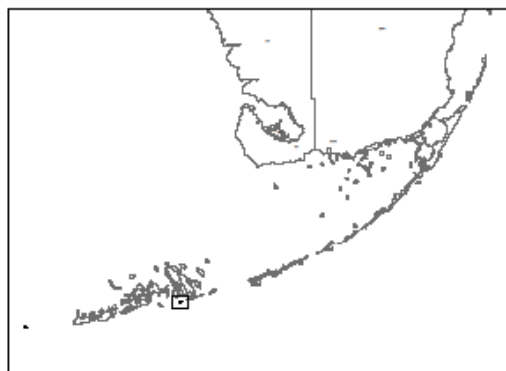
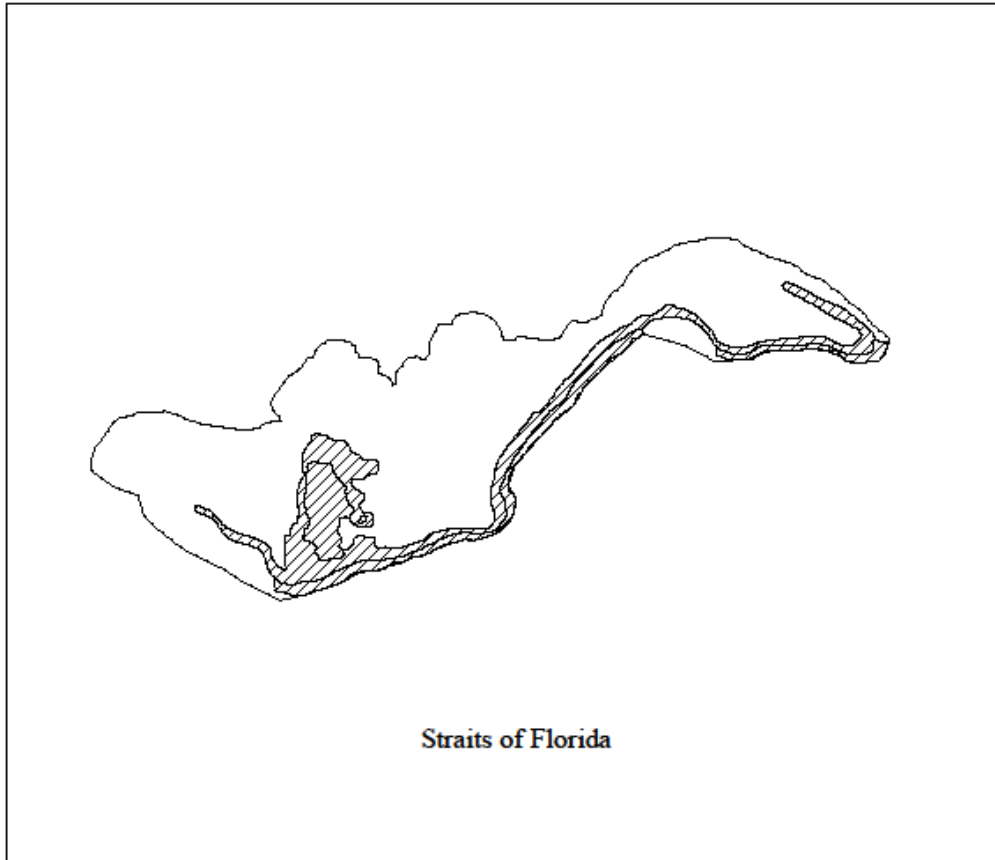


(13) Unit 8: Big Munson Island, Monroe County, Florida.

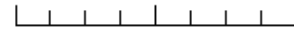
(i) *General Description*: Unit 8 consists of a total of 28 acres (11 hectares) in Monroe County. This unit is composed entirely of lands in private ownership.

(ii) Map of Unit 8 follows:

Map of Unit 8 of Critical Habitat for *Chromolaena frustrata*



0 0.1 0.2 0.4 Miles



0 0.1 0.2 0.4 Kilometers



— Highway

— Major Road

~ Coastline

▨ Critical Habitat

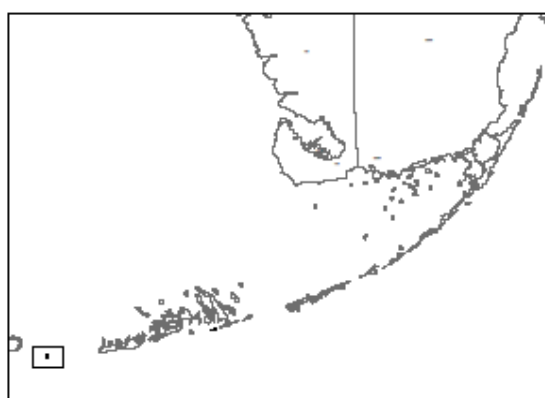
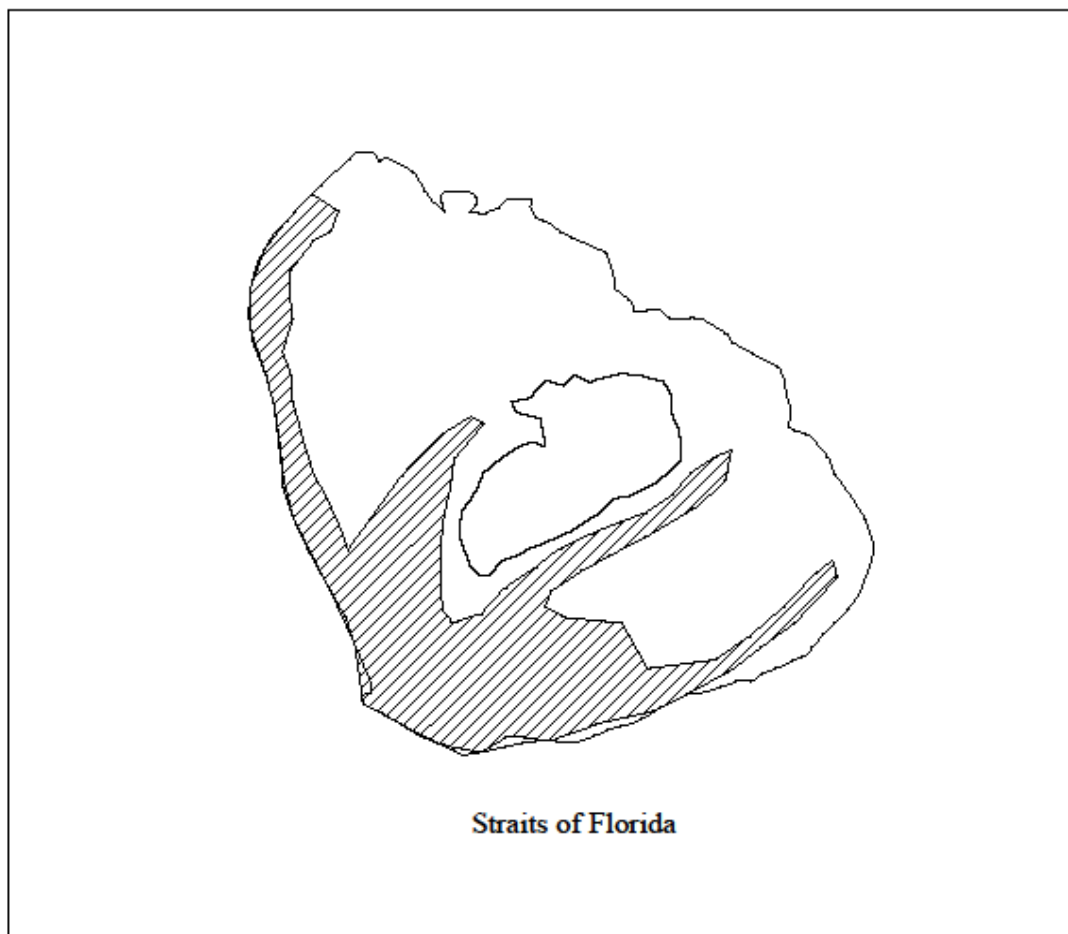


(14) Unit 9: Boca Grande Key, Monroe County, Florida.

(i) *General Description*: Unit 9 consists of a total of 62 acres (25 hectares) in Monroe County. This unit is composed entirely of lands in Federal ownership, 100 percent of which is located within the Key West National Wildlife Refuge.

(ii) Map of Unit 9 follows:

Map of Unit 9 of Critical Habitat for *Chromolaena frustrata*




0 0.1 0.2 0.4 Miles

0 0.1 0.2 0.4 Kilometers

— Highway

— Major Road

~ Coastline

 Critical Habitat



\* \* \* \* \*

December 20, 2013

Rachel Jacobson

Principal Deputy Assistant Secretary for Fish and Wildlife and Parks

Billing Code 4310-55-P

[FR Doc. 2013-31576 Filed 01/07/2014 at 8:45 am; Publication Date: 01/08/2014]